S. Hrg. 99-58, Pt. 1

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

S. 674

AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 1986 FOR THE ARMED FORCES FOR PROCUREMENT, FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, FOR OPERATION AND MAINTENANCE, AND FOR WORKING CAPITAL FUNDS, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 1

U.S. MILITARY POSTURE

Secretary of Defense Caspar Weinberger
Gen. John W. Vessey, Jr., Chairman, Joint Chiefs of Staff

FEBRUARY 4, 1985

Printed for the use of the Committee on Armed Services

U.S. GOVERNMENT PRINTING OFFICE
46-387 O WASHINGTON : 1985

S201-26

COMMITTEE ON ARMED SERVICES

BARRY GOLDWATER, Arizona, *Chairman*

STROM THURMOND, South Carolina
JOHN W. WARNER, Virginia
GORDON J. HUMPHREY, New Hampshire
WILLIAM S. COHEN, Maine
DAN QUAYLE, Indiana
JOHN P. EAST, North Carolina
PETE WILSON, California
JEREMIAH DENTON, Alabama
PHIL GRAMM, Texas

SAM NUNN, Georgia
JOHN C. STENNIS, Mississippi
GARY HART, Colorado
J. JAMES EXON, Nebraska
CARL LEVIN, Michigan
EDWARD M. KENNEDY, Massachusetts
JEFF BINGAMAN, New Mexico
ALAN J. DIXON, Illinois
JOHN GLENN, Ohio

James F. McGovern, *Staff Director and Chief Counsel*
Arnold L. Punaro, *Staff Director for the Minority*
Alan R. Yuspeh, *General Counsel*
Christine C. Dauth, *Chief Clerk*

CONTENTS

Page

Weinberger, Hon. Caspar W., Secretary of Defense 15
Vessey, Gen. John W., Jr., Chairman, Joint Chiefs of Staff 45
Report of the Secretary of Defense, Caspar W. Weinberger 175
U.S. military posture for fiscal year 1986 453
Index ..... (i)

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

MONDAY, FEBRUARY 4, 1985

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

U.S. MILITARY POSTURE

The committee met in open session pursuant to notice, at 9:02 a.m., in room SD-106, Dirksen Senate Office Building, Senator Goldwater (chairman), presiding.

Present: Senators Goldwater, Thurmond, Warner, Cohen, Quayle, Wilson, Denton, Gramm, Nunn, Stennis, Exon, Levin, Kennedy, and Bingaman.

Staff present: James F. McGovern, staff director and chief counsel; Arnold L. Punaro, staff director for the minority; Alan R. Yuspeh, general counsel; Jeffrey H. Smith, minority counsel, Christine C. Dauth, chief clerk; Patrick A. Tucker, counsel; Gerald D. Strickler, printing and documents clerk; Jon Etherton, Robert F. Bott, Ron Kelly, Richard D. Finn, Jr., Drew A. Harker, William E. Hoehn, Jr., George K. Johnson, Jr., Robert Bell, Alan Chvotkin, David S. Lyles, José E. Martinez, Mark B. Robinson, Ann E. Sauer, Carl M. Smith, John J. Hamre, Gordon G. Riggle, Douglas R. Graham, professional staff members; Judith A. Freedman, Patricia L. Watson, and Russell C. Miller, research assistants; Shelly Turner, Inga B. Schoonover, and Lisa M. Tietge, staff assistants.

Also present: Gerald J. Smith, assistant to Senator Goldwater; Les Brownlee, assistant to Senator Warner; James H. Dykstra and James Bodner, assistants to Senator Cohen, Bernard R. Toon, assistant to Senator Quayle; John Roddy, assistant to Senator East; Mark J. Albrecht, assistant to Senator Wilson; Francis J. Sullivan and Mary A. Shields, assistants to Senator Stennis; Janne E. Nolan, assistant to Senator Hart; Jeffrey B. Subko, assistant to Senator Exon; Peter D. Lennon, assistant to Senator Levin; James Steinberg, assistant to Senator Kennedy; Charles C. Smith, assistant to Senator Dixon; Forest Hamilton, assistant to Senator Denton; and John Rasmussen, assistant to Senator Gramm.

[The bill, S. 674 follows:]

[S. 674, 99th Cong., 1st sess.]

A BILL To authorize appropriations for fiscal year 1986 for the Armed Forces for procurement, for research, development, test, and evaluation, for operation and maintenance, and for working capital funds, to prescribe personnel strengths for such fiscal year for the Armed Forces, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Department of Defense Authorization Act, 1986".

TITLE I—PROCUREMENT

AUTHORIZATION OF APPROPRIATIONS, ARMY

SEC. 101. Funds are hereby authorized to be appropriated for fiscal year 1986 for procurement of aircraft, missiles, weapons, and tracked combat vehicles, and ammunition and for other procurement for the Army as follows:

For aircraft, $3,892,500,000.
For missiles, $3,386,700,000.
For weapons and tracked combat vehicles, $5,739,100,000.
For ammunition, $2,635,000,000.
For other procurement, $5,712,800,000.

AUTHORIZATION OF APPROPRIATIONS, NAVY AND MARINE CORPS

SEC. 102. (a) Funds are hereby authorized to be appropriated for fiscal year 1986 for procurement of aircraft, weapons (including missiles and torpedoes), shipbuilding and conversion, and other procurement for the Navy as follows:

For aircraft, $12,062,600,000.
For weapons (including missiles and torpedoes), $5,627,900,000.
For shipbuilding and conversion, $11,411,600,000.
For other procurement, $6,601,200,000.

(b) Funds are hereby authorized to be appropriated for fiscal year 1986 for procurement for the Marine Corps (including missiles, tracked combat vehicles, and other weapons) in the amount of $1,726,800,000.

AUTHORIZATION OF APPROPRIATIONS, AIR FORCE

SEC. 103. Funds are hereby authorized to be appropriated for fiscal year 1986 for procurement of aircraft and missiles and for other procurement for the Air Force as follows:

For aircraft, $26,165,500,000.
For missiles, $10,862,700,000.
For other procurement, $9,538,000,000.

AUTHORIZATION OF APPROPRIATIONS, DEFENSE AGENCIES

SEC. 104. Funds are hereby authorized to be appropriated for fiscal year 1986 for the Defense Agencies in the amount of $1,391,900,000.

CERTAIN AUTHORITY PROVIDED THE SECRETARY OF DEFENSE IN CONNECTION WITH THE NATO AIRBORNE WARNING AND CONTROL SYSTEM (AWACS) PROGRAM

SEC. 105. Effective October 1, 1985, section 103(a) of the Department of Defense Authorization Act, 1982 (Public Law 97-86; 95 Stat. 1100) is amended by striking out "fiscal year 1985" both places it appears and inserting in lieu thereof "fiscal year 1986".

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

AUTHORIZATION OF APPROPRIATIONS

SEC. 201. Funds are hereby authorized to be appropriated for fiscal year 1986 for the use of the Armed Forces for research, development, test, and evaluation, in amounts as follows:

For the Army, $5,279,900,000.
For the Navy (including the Marine Corps), $11,265,900,000.
For the Air Force, $15,578,500,000.

For the Defense Agencies, $7,157,900,000, of which $103,500,000 is authorized for the activities of the Director of Test and Evaluation, Defense.

TITLE III—OPERATION AND MAINTENANCE

SEC. 301. (a) Funds are hereby authorized to be appropriated for fiscal year 1986 for the use of the Armed Forces of the United States and other activities and agencies of the Department of Defense for expenses, not otherwise provided for, for operation and maintenance, in amounts as follows:

For the Army, $20,190,630,000.
For the Navy, $25,797,700,000.
For the Marine Corps, $1,667,400,000.
For the Air Force, $20,924,400,000.
For the Defense Agencies, $7,568,900,000.
For the Army Reserve, $779,600,000.
For the Naval Reserve, $954,500,000.
For the Marine Corps Reserve, $61,600,000.
For the Air Force Reserve, $907,700,000.
For the Army National Guard, $1,605,200,000.
For the Air National Guard, $1,830,100,000.
For the National Board for the Promotion of Rifle Practice, $920,000.
For Defense Claims, $158,300,000.
For the Court of Military Appeals, $3,200,000.

(b) There are authorized to be appropriated for fiscal year 1986, in addition to the amounts authorized to be appropriated in subsection (a), such sums as may be necessary—

(1) for unbudgeted increases in fuel costs; and
(2) for unbudgeted increases as the result of inflation in the cost of activities authorized by subsection (a).

TITLE IV—WORKING CAPITAL FUNDS

SEC. 401. Funds are hereby authorized to be appropriated for fiscal year 1986 for the use of the Armed Forces of the United States and other activities and agencies of the Department of Defense for providing capital for working capital funds, in amounts as follows:

For the Army Stock Fund, $442,000,000
For the Navy Stock Fund, $716,500,000.
For the Marine Corps Stock Fund, $42,700,000.
For the Air Force Stock Fund, $464,900,000.
For the Defense Stock Fund, $193,500,000.

TITLE V—ACTIVE FORCES

SEC. 501. The Armed Forces are authorized strengths for active duty personnel as of September 30, 1986, as follows:

(1) The Army, 780,800.
(2) The Navy, 586,300.
(3) The Marine Corps, 199,500.
(4) The Air Force, 611,500.

TITLE VI—RESERVE FORCES

AUTHORIZATION OF AVERAGE STRENGTHS FOR SELECTED RESERVE

SEC. 601. (a) For fiscal year 1986 the Selected Reserve of the reserve components of the Armed Forces shall be programmed to attain average strengths of not less than the following:

(1) The Army National Guard of the United States, 444,000.
(2) The Army Reserve, 291,900.
(3) The Naval Reserve, 134,400.
(4) The Marine Corps Reserve, 41,900.
(5) The Air National Guard of the United States, 108,700.
(6) The Air Force Reserve, 75,600.
(7) The Coast Guard Reserve, 12,500.

(b) The average strengths prescribed by subsection (a) for the Selected Reserve of any Reserve component shall be proportionately reduced by (1) the total authorized strength of units organized to serve as units of the Selected Reserve of such component which are on active duty (other than for training) at any time during the fiscal year, and (2) the total number of individual members not in units organized to serve as units of the Selected Reserve of such component who are on active duty (other than for training or for unsatisfactory participation in training) without their consent at any time during the fiscal year. Whenever such units or such individual members are released from active duty during any fiscal year, the average strength prescribed for such fiscal year for the Selected Reserve of such Reserve component shall be proportionately increased by the total authorized strength of such units and by the total number of such individual members.

AUTHORIZATION OF END STRENGTHS FOR RESERVES ON ACTIVE DUTY IN SUPPORT OF THE RESERVES

SEC. 602. (a) Within the average strengths prescribed in section 601, the Reserve components of the Armed Forces are authorized, as of September 30, 1986, the following number of Reserves to be serving on full-time active duty or full-time duty, in the case of members of the National Guard for the purpose of organizing, administering, recruiting, instructing, or training the Reserve components:

(1) The Army National Guard of the United States, 30,679.
(2) The Army Reserve, 14,714.
(3) The Naval Reserve, 19,510.
(4) The Marine Corps Reserve, 1,475.
(5) The Air National Guard of the United States, 7,269.
(6) The Air Force Reserve, 635.

(b) Upon a determination by the Secretary of Defense that such action is in the national interest, the end strengths prescribed by subsection (a) may be increased by a total of not more than the number equal to 2 percent of the total end strengths prescribed.

INCREASE IN NUMBER OF CERTAIN PERSONNEL AUTHORIZED TO BE ON ACTIVE DUTY IN SUPPORT OF THE RESERVE COMPONENTS

SEC. 603. (a) The table in section 517(b) of title 10, United States Code, is amended to appear as follows:

"Grade	Army	Navy	Air Force	Marine Corps
E-9	517	175	80	9
E-8	2,296	381	358	74".

(b) The table in section 524(a) of such title is amended to appear as follows:

"Grade	Army	Navy	Air Force	Marine Corps
Major or Lieutenant Commander	2,476	875	476	100
Lieutenant Colonel or Commander	1,240	520	318	60
Colonel or Navy Captain	360	177	189	25".

(c) The amendments made by subsections (a) and (b) shall take effect on October 1, 1985.

TITLE VII—CIVILIAN PERSONNEL

AUTHORIZATION OF END STRENGTH

SEC. 701. The provisions of section 138(c)(2) of title 10, United States Code, shall not apply with respect to fiscal year 1986 or with respect to the appropriation of funds for that year.

TITLE VIII—MILITARY TRAINING STUDENT LOADS

AUTHORIZATION OF TRAINING STUDENT LOADS

SEC. 801. (a) For fiscal year 1986, the components of the Armed Forces are authorized average military training student loads as follows:

(1) The Army, 79,686.

(2) The Navy, 71,018.
(3) The Marine Corps, 20,766.
(4) The Air Force, 43,389.
(5) The Army National Guard of the United States, 18,886.
(6) The Army Reserve, 16,985.
(7) The Naval Reserve, 3,355.
(8) The Marine Corps Reserve, 3,790.
(9) The Air National Guard of the United Stes, 2,517.
(10) The Air Force Reserve, 2,352.

(b), The average military student loads for the Army, the Navy, the Marine Corps, and the Air Force and the Reserve components authorized in subsection (a) for fiscal year 1986 shall be adjusted consistent with the manpower strengths authorized in titles V and VI of this Act. Such adjustment shall be apportioned among the Army, the Navy, the Marine Corps, and the Air Force and the Reserve components in such manner as the Secretary of Defense shall prescribe.

TITLE IX—GENERAL PROVISIONS

INDUSTRIAL FUND CAPITALIZATION PROGRAM

SEC. 901. Section 2208(j) of title 10, United States Code is amended by striking out ", not less than 4 percent during fiscal year 1986, and not less than 5 percent during fiscal year 1987."

CONTINUED OPERATION BY THE SECRETARY OF DEFENSE OF THE DEFENSE DEPENDENTS' EDUCATION SYSTEM

SEC. 902. (a)(1) Sections 208 and 302, subsection (e) of section 202 and subsection (f) of section 401 of the Department of Education Organization Act (20 U.S.C. 3418, 3442, 3412(e) and 3461(f) are repealed.

(2) Section 419(a) of such Act (20 U.S.C. 3478(a)) is amended—

(A) by striking out "(1)" after the subsection designation "(a)", and

(B) by striking out paragraph (2).

(3) Section 503(a) of such Act (20 U.S.C. 3503(a)) is amended—

(A) by striking out "(1)" after the subsection designation "(a)", and

(B) by striking out clause (2).

(4) The table of contents at the beginning of such Act is amended by striking out the items relating to sections 208 and 302.

(5) Section 414(b) of such Act (20 U.S.C. 3474(b)) is amended by striking out "302".

(6) Section 508(f) of such Act (5 U.S.C. 5316) is amended by striking out "(38) Administrator of Education for Overseas Dependents, Department of Education".

(b) Section 1402 of the Defense Dependents' Education Act of 1978 (20 U.S.C. 921) is amended by inserting the following new subsection:

"The Secretary of Defense, in his discretion, may request the Secretary of Education to provide information, advice, and technical support concerning educational programs and practices.".

(c) The second sentence of section 1410(b) of the Defense Dependents' Education Act of 1978 (20 U.S.C. 928(b)) is amended by striking out "The Secretary of Education, in consultation with the Secretary of Defense" and inserting in lieu thereof "The Secretary of Defense".

(d) Section 1411(a) of the Department of Defense Education Act of 1978 (20 U.S.C. 929(a)) is amended to read as follows:

"(a) There is established in the Department of Defense an Advisory Council on Dependents' Education (hereinafter in this section referred to as the 'Council'). The Council shall be composed of—

"(1) the Assistant Secretary of Defense for Manpower and Logistics (hereinafter in this section referred to as the 'Assistant Secretary'), who shall be the chairman of the Council;

"(2) twelve individuals appointed by the Assistant Secretary, who shall be individuals who have demonstrated an interest in the field of primary or secondary education and who shall include representatives of professional employee organizations, school administrators, and sponsors of students enrolled in the defense dependents' education system, and one student enrolled in such system.

"(3) representatives from overseas military commands and from educational institutions as designated by the Assistant Secretary; and

"(4) one individual appointed by the Secretary of Education. The Director shall be the Executive Secretary of the Council.".

(e) Section 1411(b)(1) of such Act (20 U.S.C. 929(b)(1), is amended by striking out "Secretary of Education" and inserting in lieu thereof "Assistant Secretary".

(f) Section 1411(c) of such Act (20 U.S.C. 929(c) is amended—

(1) by striking out "at least four times each year" and inserting in lieu thereof "not more than four times each year";

by striking out clause (2):

(3) by redesignating clauses (3), (4), and (5) as clauses (2), (3), and (4) respectively; and

(4) by striking out "Secretary of Education" in clause (4) (as redesignated in clause (3) of this subsection) and inserting in lieu thereof "Assistant Secretary".

SPECIAL DEFENSE ACQUISITION FUND

Sec. 903. Section 138(g) of title 10, United States Code, is amended to read as follows:

"(g) The size of the Special Defense Acquisition Fund established pursuant to chapter 5 of the Arms Export Control Act may not exceed $1,000,000,000.".

REPEAL OF EUROPEAN TROOP STRENGTH LIMITATION

Sec. 904. Section 1002 of the Department of Defense Authorization Act, 1985, is amended by repealing subsection (c) and by redesignating subsections (d), (e), and (f) as subsections (c), (d), and (e) respectively.

OPENING STATEMENT BY SENATOR BARRY GOLDWATER, CHAIRMAN

Chairman Goldwater. The committee will come to order.

The committee meets this morning to receive testimony on the fiscal year 1986 Defense budget. This budget has already been the subject of much controversy, and understandably so. We are faced today with a record high Federal deficit which must be reduced.

All areas of Government spending have helped to create the deficit and now all must contribute to reducing it. Defense, I might say, is no exception and I have said so on many occasions.

Today there are some who favor imposing a freeze on Defense spending as part of an overall "deficit reduction package" that would freeze all Government spending. This proposal has some appeal.

But I predict, on the basis of more than 30 years experience with Congress, that if such a "package" is agreed to, in the end the lion's share of that which will be frozen will come from Defense.

Such a result might be temporarily popular, but in the long run, would be highly irresponsible. When the penalties of a Defense freeze are fully understood, the idea should lose much of its appeal.

Furthermore, an across-the-board freeze at this time would not end with this year, but would probably continue the next year, and the next, and soon the result would be no defense at all.

But that is not to say that Defense spending cannot be trimmed. It can and will be reduced. However, it is misleading to suggest that an adequate Defense posture can be maintained by simply adhering to some arbitrary level of real growth. For Defense requirements are based not on economic considerations, but on the external threat to our national security.

I would remind not only the Secretary of Defense, but the President, and every person living in this country, particularly the members of Congress, that our first responsibility under the Constitution is to provide for the defense of our country.

Today the threat to our national security is quite real. It is interesting to note that while much is said about the buildup of U.S.

Defense forces, one reads very little about the growth in the Soviet military.

Currently, the Soviets spend about 16 percent of their Gross National Product (GNP) on Defense compared with our 6.4 percent in 1985.

I might add in the last year of the revolution we spent 6.7 percent of our Gross National Product. So, we are not getting a lot better.

The Russians have now deployed nearly 400 SS-20 long-range theater nuclear missiles, and during the past 2 years developed three new classes of attack submarines, three new fighter aircraft, one of which has seen combat in Afghanistan, and two new ICBMs, the SS-X-24 and SS-X-25.

They are building their first nuclear aircraft carrier and already have deployed both an anti-ballistic missile (ABM) system and an anti-satellite weapons system.

In addition, they continue to outproduce us in almost every category of conventional weapon. And while maintaining their quantitative advantage, they continue to close the qualitative gap.

These are facts, not suppositions. It is all there, and it is going on right now, you just don't hear much about it from the national media.

At this point, it may be helpful to put our Defense spending in perspective. Over the past 20 years, 1966-1985, the total Federal budget has grown, in real dollars, from $456.8 billion to $928.9 billion. Defense spending accounted for 11 percent of that increase, while domestic spending and net interest payments accounted for the other 89 percent.

Comparing just domestic and Defense expenditures during that period, the growth in domestic spending outpaced Defense increases by a ratio of nearly seven to one.

It should be noted that significant efforts have already been made by both the administration and Congress over the last 4 years to trim the growing deficit. But it is instructive, particularly in the context of the current budget debate, to observe where those efforts have been directed.

Using the original Reagan 5-year budget as a baseline, Defense has been cut more than $70 billion, while domestic expenditures actually increased more than $160 billion.

Over the past 4 years, despite the reductions in the Reagan Defense Plan, we have made substantial progress toward restoring our national defense. There are areas where we are still deficient. For example, we are still not producing enough tactical aircraft to replace attrition and retirement losses, but overall, by every significant measure, we are in far better shape than we were 4 years ago.

The greatest advancement made in our military over the past 4 years has been in the increased quality of our enlisted men and officers. Now, I speak from experience on this. I was commissioned a second lieutenant in the infantry reserves 56 years ago and I have had occasion to watch the Armed Forces grow.

I have also watched them suffer from the lack of properly trained individuals, obsolete equipment and inadequate operating budgets. But today things are changing. It is not just thrilling, but also most encouraging to visit our various military bases around the world and observe the keen interest, the spirit, and solid dedication of our servicemen and women at every level of the rank structure.

This is the spirit that made this country great to start with. It is the spirit that has won wars. It is the spirit that has made this country the greatest country in the world. Nothing, I repeat, nothing that we do with the Federal budget should ever throw one ounce of doubt into the hearts of those young people who make up our forces today.

Perhaps the best indication that the improvements in our Defense posture are real, is the fact the Soviets have returned to the negotiating table. Soviet efforts to intimidate and fragment the West have failed and we are finally dealing from a position of strength.

Those in Congress, both Democrat and Republican, who have supported Defense, should be claiming victory. Our commitment to Defense has convinced the Soviets that it is in their interest to negotiate. Therefore, now is not the time to be talking about major Defense reductions or the unilateral cancellation of strategic programs.

The successes we have enjoyed over the past 4 years in modernizing our forces, increasing readiness levels, and improving the management of the Defense budget, are the direct result of properly funding Defense requirements.

It is my belief that the American public has been misled about alleged irresponsible spending by the Defense Department. Yes, we have had the $400 hammers, but how many? We have had the $7,000 coffee pots, but how many?

If we really want to point the finger at some real overruns and extravagances, let's look at all the pork barrel programs that are added to the Defense budget each year by Members of Congress who treat the budget as a convenient vehicle to enhance their reelection prospects.

And let's discover whether or not every single trip to a foreign country by a Member of Congress is really needed. How many trips have we had to this country and that country that didn't add one penny's worth of progress toward solving our Nation's problems?

In Defense the problems of cost overruns, program instability, and forces unfit for combat that greeted the new administration in 1981 have, to a great extent, been overcome. Both the administration and Congress share the credit for these achievements. They are achievements we should build on, not use as an excuse to do less.

It is my pleasure now to welcome Secretary Weinberger and General Vessey. But before we ask for their testimony, I would like to turn to Senator Nunn and Senator Stennis.

Senator Stennis, it is a great joy to see you here.

Senator STENNIS. Thank you. I am delighted to be here.

Senator NUNN. In deference to Senator Stennis, I would like to defer to him for any comment he wishes to make and then I will come back.

I am delighted to have you here, Senator.

Senator STENNIS. Thank you.

I will only make a few comments at this point, but only after reference to the content of the testimony. I have a better chance now to know what is going on and how much money we are spending and what we are spending it for than I have had in many years because I have time to go back, check over and keep up with the subject matter.

I want to be frank about something, I have never left the military—even on points where I had some doubts—I have never left them without the money as far as I was concerned. I have a great concern and apprehension, too, about the financial affairs—the Federal financial affairs of this country and our Government.

I am not afraid of the deficit because it is big, because we can handle that. What I am afraid of is that we won't do enough about it. This is not a threat. I may not vote for all these items this year, some of which I have supported for years.

I just want to sound that serious note, as serious as I could. I am thankful to be here. We will solve this financial matter. Someone said the other day, you fellows are in a bad fix. I say no, the people are in a bad fix, the people of America, unless we do something about this thing. We are the ones that have the power entrusted to us by them. There is plenty to do here, not only on this budget, but the whole budget. There will be glory enough for us all.

I am going to vote for something that I think has the best chance of passing. Incidentally, I am not going to run away from the military. I have been over this matter with the Secretary. I am very much impressed with his knowledge in this field and his persistence. I don't suggest you slack up on either of them.

Thank you very much.

[The prepared statement of Senator Stennis follows:]

PREPARED STATEMENT BY SENATOR JOHN C. STENNIS

Mr. Secretary, I want to add my welcome to you for this hearing today, and say that I am very pleased to be able to be at this first major hearing on the defense budget and program for Fiscal Year 1986. This hearing is also a first for my good friend Barry Goldwater, the Chairman of the Senate Armed Services Committee. I would also like to thank each one of you and all of the people who sent their prayers and good wishes to me during my recent illness. Mr. Secretary, this is an important year for defense and under our Constitution you have a prime responsibility for the defense program. It has been a long time—from prior to Vietnam—since there has been no major debate on the defense budget. This year is no exception and there will be debate from all sides again. As time goes on, it becomes clearer and clearer that we are facing a major budgetary dilemma. On the one hand we must get this run-away national debt under control. It is projected to be some $3 trillion within just a few years if these deficits continue to build up. On the other hand, we live in a dangerous world and must provide for the national defense. We must find a way to balance the economic threat of foreign intervention in our economy that this growing debt presents against the military threat that the Russians continue to present. As this debt continues to grow, more and more of the U.S. economy and even government spending is being financed by foreigners and more and more solid production jobs travel overseas as the high dollar makes overseas production cheaper. At the same time, there is no lack of trouble spots around the world and real risks and dangers for which we must be prepared militarily.

This year's task for all of us will be to find ways to reduce the deficit and its economic threat without seriously harming our military preparedness.

Mr. Secretary, we are going to need your help and I look forward to working with you in this endeavor.

Senator NUNN. Mr. Chairman, I want to join you and Senator Stennis in welcoming the Secretary and General Vessey here this morning.

As Secretary Weinberger begins his fifth posture hearing, I think we ought to give credit where credit is due. There is no doubt Secretary Weinberger and General Vessey are correct when they say our U.S. military today is more capable than it was 4 years ago.

QUALITY OF OUR FORCES

Also, Mr. Chairman, I want to underline your comments about the quality of our forces. Without any doubt, the quality has improved very significantly over the last 5 years beginning when the Congress took a great deal of initiatives in late 1979 and those initiatives have been reinforced during the Reagan administration. The quality of our forces is a tremendous attribute and a great asset to our country.

The question that we are going to face this year more and more is to focus on output rather than input. We have been debating input an awful lot in the last 3 years, and input is an enormous part of the overall Defense equation. I believe, however, that we are close to the posture that those who advocated social spending increases in the 1960's and 1970's found themselves in the late seventies. That is, we paid so much heed to input and we have not paid nearly as much heed to the output.

I say that "We" with a capital "W," all of us, Congress, the administration, the Secretary, share that responsibility. We have to focus more and more on what we are getting out of the Defense budget. It is obvious if you look at the $200 billion deficit we have today and if you look at the fact that Defense is one-third of the overall Federal budget; and you look at the fact that entitlement programs are another 40 percent and interest on the debt is another 15 percent.

We must begin to look at the 4 or 5 years of Defense spending and understand that the resources simply are not going to be there over the next 5 years to carry out the programs that Secretary Weinberger is laying out here.

I am one of those who has felt that we need to beef up our defenses. I still feel that way. But we will particularly have to find ways to make the dollar go much further, we will particularly have to find ways to work with our allies to make the dollar go further.

IMPROVING NATIONAL SECURITY

In the final analysis history will judge us not by what we spent, but what improvements we have made in our national security. That is the bottom line, not the dollar. Unless the focus is shifted, I think we will have some very severe problems in the next 3 or 4 years.

Once again this year, the question is not whether the Defense budget will be reduced. If we listen to all the voices on Capitol Hill and many in the administration, I think it is a question of how much the Defense budget will be reduced.

I don't have a ready answer for that, but I am convinced reducing the Defense budget without harming national security cannot be answered by the simple question: How much?

LEVEL OF DEFENSE SPENDING

In stating the level of Defense spending, we need to ask what are we getting and where are we going? We need to have the budget output oriented. This framework must include the need to include the Defense budget in our overall deficit control picture, not just this year, but next year and the year after.

Unless we start looking beyond the current year, we will be caught in a trap that inevitably, in spite of the good intentions by those who advocate one year at a time approach, we are going to be seeing our Defense capability erode in the next 5 years because we have not looked down the road.

We have the Pentagon planning for a program that simply cannot be funded. That is where we are today. This trap is, frankly, set for us by the Secretary's approach. It is very skillful and very tactical in the short term, but in the long term I think it will be counterproductive.

That is keeping us looking at one year at a time. I believe you can't judge the Defense budget simply in one year. When the Secretary says we can't look beyond one year because of external threat, I think that ignores the internal workings of the Defense Department, itself, where they do have a 5-year Defense plan. I think the Department of Defense does more forward planning than any other agency of the Government.

Mr. Chairman, I believe it is a very bad mistake for us to continue to look one year at a time to focus primarily on outlays which are basically expenditures that are almost automatic, based on previous years' budget authority, and not to look at the budget authority in 1986, 1987, 1988 and that time frame.

MILITARY STRATEGY

I think we also must look at the military strategy. I have been talking about this for a long time. We have had very large increases for the last 4 or 5 years. I am very interested in asking the Secretary some questions this morning about when we are going to be able to achieve our goals as set forth in the posture statement and I am sure we will have further refinement of those goals this morning.

I also say we have to look at our allies' contributions. Too many times we have presentations where we see chart after chart comparing the United States with the Soviet Union when I think any member of the Joint Chiefs will say the most likely scenarios in the way we might face the Soviets would necessarily include our allies.

We are going to have to look at that. I have said and will say again this year unless our allies, in Europe particularly, do the things they have set forth in their promises to do, then an awful lot of the money we are spending is simply not going to be producing the results.

We have to ask very serious questions whether we ought to be moving toward 75-day sustainability in NATO when our allies now have something less than 15 or 16 days in many areas of conventional Defense supplies.

That is a question that is very pertinent when we have something like $50 billion planned over the next 5 years in conventional munitions alone. What happens when our allies give out on ammo? They have 78 percent of the land forces. What happens when they give out? Does it matter whether we have 30 days at that stage or 40 days or 50 days?

The conventional part of the war is over in Europe when our allies run out of ammunition.

DEFENSE PRIORITIES

I will also say that Defense priorities have to be another part of our concern. Funding for nuclear programs is certainly going to be one of the fastest growing areas of the budget. We are going to ask a lot of questions about whether we indeed are squeezing out our conventional capability.

I have to look down the road 3 or 4 years and wonder when you fence off the nuclear programs and add onto that the Strategic Defense Initiative, whether we will have enough money left in any kind of reasonably projected fiscal environment to fund our conventional forces—our forces that would be most likely to be used in most scenarios, at least in the beginning stages.

I think we also have to press the Defense Department on the question of stewardship of the resources that have been provided between fiscal years 1980 and 1985 budget authority by $142 billion or 48 percent in real terms. This is certainly the largest sustained level in peacetime spending in our history.

The question of where the money has gone, whether we have gotten our money's worth in efficiency and economies has to be front and center in terms of our deliberations.

I think we have to ask whether significant improvements in Defense capability, formulation of strategy, and cooperation with our allies, setting priorities and sound stewardship and resources are possible without some reorganization of the Department of Defense.

Mr. Chairman, I join you enthusiastically in making that a priority this year. I know you have made it clear that is going to be a priority. I don't have preconceived judgments on the subject.

We have had a number of studies on the overall question of Defense organization. I would hope that the Secretary, himself, would take a very close look at this as well as the Joint Chiefs.

REORGANIZATION IN THE DOD

In my view, we are going to have to have some reorganization in the Department of Defense if we are going to be able to tell the American people that that money is being spent wisely in the defense of our Nation.

There are many significant problems, many of which pre-date this administration. I know that Chairman Goldwater shares my view that the overall reorganization of the Department of Defense, not just the Joint Chiefs, but also the Secretary of Defense's Office, itself, and many of the civilians in the Department of Defense, has to be a very top focus of our committee.

I look forward to working with you in a bipartisan spirit this year in asking these questions and I am sure many others which will be presented to us.

Thank you.

Chairman GOLDWATER. Thank you, Senator.

I would like to take this opportunity to welcome two new members of our committee, one is Senator Gramm from Texas and the other is a former member of our committee Senator Denton from Alabama.

We welcome both of you to the committee and look forward to your contribution.

Now I will ask Senator Thurmond if he has something to say?

Senator THURMOND. Thank you, Mr. Chairman.

Mr. Secretary and General Vessey, it is a pleasure to have you here today to receive your testimony on the Department of Defense authorization bill for fiscal year 1986.

Unfortunately the press has been filled with stories that the lack of any meaningful reductions in the deficit is caused by the intransigence of your Department.

Mr. Secretary, I may be in the minority, but I am glad that you are intransigent. Everyone wants to make large reductions in Defense expenditures, but they do not want to closely examine the threat that our Nation faces and the impact of large cuts on our security.

I hope that we can maintain our objectivity as we review the Defense budget and continue with our modernization efforts begun 4 years ago.

It is important to note, Mr. Secretary, that the success of President Reagan's Defense program is the result of your dedicated work. Our Nation owes you a great debt, and I very much regret the way you are maligned for doing a good job.

I have a few questions for you at this time Mr. Secretary, our distinguished Chairman, Senator Goldwater—if I may, I have to go to the White House in a little while.

Secretary WEINBERGER. I will have a statement, but I will be delighted to cooperate with you. If you have another appointment, I will be glad to answer your questions now if that is agreeable with the Chairman.

Senator THURMOND. I have to leave to go to the White House in a few minutes.

Secretary WEINBERGER. Your opening statement was so satisfactory that I will be delighted to comment on it.

BASE CLOSURES

Senator THURMOND. Mr. Secretary, our distinguished Chairman, Senator Goldwater, has suggested that we look at base closures as a means of reducing Defense spending.

Do you support this idea?

Secretary WEINBERGER. Yes, I do, sir. We have looked at base closures. You should understand that the savings would only come in the third or fourth year because of the upfront costs involved in actual closings.

But we don't want to spend more than we need to, and we don't want to carry any facility we don't need. We are cooperating with the Chairman in providing lists, but our preliminary examination indicates that substantial sums would be required to be spent in the first year.

We have already had some slight indication that our total budget is at least adequate so we don't want to add to it by expenditures that, although they are heavy the first year, will indeed produce some savings in the third or fourth year.

Senator Thurmond. Mr. Secretary, would you tell us how many military bases we operate in the United States?

Secretary Weinberger. I can get the precise number for you. There are a large number of bases. There are, of course, a very large number of units.

Senator Thurmond. Will you supply that for the record according to each service?

Secretary Weinberger. Yes.

[The information follows:]

MILITARY INSTALLATIONS IN THE UNITED STATES

Military department	Total installations and properties	Principal installations
Army	1,276	[1] 216
Navy [2]	502	266
Air Force	2,090	[3] 406
Total	3,868	888

[1] Includes 9 Defense Agencies.
[2] Includes Marine Corps.
[3] Includes 5 Defense Agencies.

Senator Thurmond. There are numerous legislative roadblocks that prevent base closures.

Would you submit to the committee a list of these legislative provisions and your recommendations for revisions or appeal?

Secretary Weinberger. Yes, we plan to do that with the list, Senator. At the moment it takes about 22 months before a base can be closed due to the number of hurdles that are in the statutes that must be cleared before a single base closure can take effect.

We will submit recommendations for shortening that process.

[The information follows:]

Legislation which incorporates the language below would facilitate the base closure process:

A BILL To authorize the Secretary of Defense to close or realign any military installation if he determines that such action is in the public interest.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) chapter 159 of title 10, United States Code, is amended by adding at the end thereof the following new section:

"§ 2687a. Emergency Base Closures and Realignments

"(a) If a Budget submitted by the President, pursuant to section 1105 of title 31, United States Code, reflects a budget deficit, then during any twenty-four month period following the submission of such budget the Secretary of Defense may close or realign any military installation without regard to any other provision of law that would prevent or delay such closing or realignment, including but not limited to statutory restrictions on the disposal of specific real property, restrictions on the use of funds to close or realign military installations contained in annual appropriations acts, and without complying with the procedures set forth in sections 2662 and 2687 of title 10, United States Code, or the requirements of the National Environmental Policy Act of 1969, as amended.

"(b) The Secretary of Defense, using funds appropriated for military construction, is authorized to design and construct facilities that he determines are necessary to effect any base closure or realignment accomplished under the authority of this section."

(b) The table of sections at the beginning of such subchapter is amended by adding at the end thereof the following new item:
"2687a. Emergency Base Closures and Realignments."

Senator THURMOND. General Vessey, would you rather close bases that are of little use or cancel the modernization programs?

General VESSEY. I would certainly rather close the bases of little use than cancel the modernization programs, sir.

Senator THURMOND. I introduced an updated budget last week that would grant the Army authority to enlist certain aliens who are single and have no dependents. The purpose of the bill is to enhance our special force to operate in areas where we have little or no geographic language or expertise.

Will you gentlemen review this and advise the committee of any recommendations concerning implementation of this legislation.

General VESSEY. Yes.

STRATEGIC HOME PORTING INITIATIVE

Senator THURMOND. Mr. Secretary, the Navy wants to open new bases under the Strategic Home Porting Initiative.

Is this cost effective or even necessary?

Secretary WEINBERGER. We have a need to support the existing ships and some of the ships which we plan to add to the fleet. We would not construct any new bases that are not actually necessary.

We would, of course, try to use every facility that we have. But as new ships come on, we do need the facilities and we must ensure that they are not too heavily concentrated in any one part of the country.

Senator THURMOND. Mr. Secretary, in closing, I want to say that all of us who favor strong defense wish to eliminate any excess in any way possible or to eliminate any waste in any way possible. I am sure you and General Vessey will cooperate to the fullest to accomplish these goals.

Secretary WEINBERGER. Absolutely, without any question.

Senator THURMOND. Thank you, Mr. Chairman.

Secretary WEINBERGER. I appreciate your comments so very much, Senator.

Chairman GOLDWATER. Thank you, Senator.

Mr. Secretary, you may proceed.

STATEMENT OF HON. CASPAR W. WEINBERGER, SECRETARY OF DEFENSE

Secretary WEINBERGER. Thank you very much, Mr. Chairman and Members of the committee.

I do have a prepared statement and I appreciate very much your offer to have it placed in the record and I request that be done.

We have also submitted the annual report to the committee and to the Congress.

[For the report of Secretary of Defense Caspar W. Weinberger to the Congress on the fiscal year 1986 budget, fiscal year 1987 authorization request and fiscal years 1986–90 defense programs, as of January 30, 1985, see p. 175.]

I greatly appreciate your opening statement, Mr. Chairman, and certainly it is a delight to see Senator Stennis here and have the benefit of his very wise counsel that we have had for so long.

Senator Nunn had some very important points to make. While we are not in any sense in disagreement with the major thrust of them, there may be some misunderstanding as to the ways in which we have already emphasized output.

We have emphasized that from the beginning, particularly in discussing the matter of the necessity for coupling a strong defense with a strong Defense budget. It is true that you do have to have substantial budgets if you do want output.

It is also entirely correct that we should concentrate on what we are getting for the money and what is the output. We welcome questions as to what has actually been purchased, acquired, and gained by the funds that have been spent, funds which Congress has very generously supported in voting for over the last 4 years.

TROOP MORALE IMPROVEMENT

We have all spoken of the morale and improvement in the troops. That is one of the things we have acquired and it is one of the things of which we are very proud.

It is important also to bear in mind that when we are talking about output, as we should, then when we are talking about cutting the Defense budget, look also at what effect those cuts will have on output. There seems to be some prevalent impressions among some, not on this committee, fortunately, that if you cut the Defense budget, somehow it won't affect output at all. That, unfortunately can't be true.

A question has been raised as to the ability of the United States to do what we have to do. Questions were raised as to whether the programs we have planned for the next few years can or cannot be funded.

I believe the answer to that, Mr. Chairman, is that the country can fund what it wishes to. The country can pick out its priorities and decide what is the most important.

You, Mr. Chairman, have identified the principal priority of the Nation, as stated in the Constitution, which is to provide for the common defense, so that we can do all the other things that we have to do.

I am a little surprised to hear the Senator from Georgia take the position that there is a disagreement between us with respect to looking at more than 1 year at a time.

Our present system requires that we do look at 1 year at a time, but it also makes it essential that we recognize that 1 year is but an artificial 12-month period in what is a long-range process. We can never regain the strength that we had if we only look at 1 year at a time.

The first thing the President did on taking office was to look at a 5- or 6-year period of Defense, regaining of the Defense strength and posture that we needed in the Nation based on the conditions that he found when he arrived.

That program stretched over not 1 year, but over 5 or 6 years. We would be delighted, as I have said many times, Senator Nunn, to have a situation in which the Congress budgeted for more than 1 year at a time.

What we have to realize and recognize is the point I have made many, many times and that is that unlike other budgets for other departments, we have a budget in the Defense which is virtually determined by outside events, events which we cannot control.

Our budget is determined by outside events virtually completely. So, we have to recognize as we look 3, 4 or 5 years ahead that what we are talking about necessarily has to be a tentative framework structure.

We certainly make our acquisitions over more than a year. Aircraft carriers take 6 or 7 years to build. Many of the other systems the same. But we also have to have a degree of flexibility in the out years that preclude our saying right now today what the authorizations for 1988 or 1989 would be or our estimate of the outflows from them.

We can hope that they will come through, but we can't budget 5 years ahead for the Defense budget. We can plan 5 years ahead which we do and we can indicate approximately where that may bring us out.

We certainly are not in the posture of urging that you consider only 1 year at a time. We are faced with a system in which that is what happens. We would be delighted if we could look at 2 or 3 years on an actual budgetary basis so long as it is recognized that the second, third and fourth years were indeed only outlines and had to be reconsidered as we got closer to the actual events.

Otherwise, you are stating right now what we will be spending 42 months away. If the idea is that should be done with finality, then I think that would be a considerable problem. Our conventional forces——

Senator NUNN. Would the Secretary yield for one brief moment?

TWO-YEAR BUDGET

Mr. Secretary, Senator Goldwater and I have asked each year that a 2-year budget be submitted. We have gone through hearings on that 2-year budget. I think you ran into difficulty trying to do that.

Can you tell us whether the 2-year budget could be presented?

Secretary WEINBERGER. It could be presented very easily, but we would have to understand that the second year would be a budget that would be subject to at least two major sets of potential alterations.

One is if the Defense Department is the only Department in the Government doing it, whatever we do would have to be fitted into the overall Governmental picture in the second year which would not be on a 2-year budget.

The other would be press of world activities and world events. We would be delighted to give you a notional second or third year with the understanding that the outline has not been actually determined.

A lot of the discussion about the construction of the 1986 Defense budget, the one that is before you, turned on the fact that the President declined to make specific decisions with respect to 1987, 1988 and 1989.

There is some feeling around, expressed in many of the things that I have read, that the President in effect declined to make cuts and insisted on huge increases for those out years. Nothing of the kind took place.

The President was asked to make very large reductions in the straightline projections of some of those budgets based on the 1986 figures and he declined to do that. He decided not to make any decisions with respect to 1987, 1988 and 1989, which I think is an entirely proper course.

He could perfectly well, if he followed some advice, show a $50, $60, $70, or $80 billion reduction for those years and presumably a lot of people would have been very happy because it would have shown that America was sharply reducing its Defense expenditures. It would have been totally dishonest because we don't have any idea what the requirements will be in those years.

We know what we believe will be required by the ongoing program. We know that about 40 percent of this year's spending is actually devoted to continuing programs that carry over from previous years, some 4, 5, or 6 years ago.

So that not half, but 40 percent of the budget is constructed for you already, so to speak, unless we want to make major reductions or eliminations of things the Congress previously has considered were correct.

So, you do have those basic factors. If the Congress would like to see a notional second year budget, we can do that and the top line figure would be somewhere in the neighborhood of the projections acquired from this year's budget.

But it is not a firm policy decision because the President has to fit Defense for the out years into all the other priorities and determinations of the Government. Quite clearly, we are heavily engaged on this year's budget and he is not ready to make determinations for 1987 and 1988 in the form of formal submissions.

Chairman GOLDWATER. We have discussed this in our so-called Republican effort to create a budget.

You mentioned 40 percent continued spending to facilitate multiyear purchases.

Why couldn't we begin to treat those carry-over expenditures as something other than budgetary items?

I don't think you have to answer right now and I know I don't have the answer. We are the only Department in the whole Government that I know of where the budget is not spent entirely in the next year. We may pay out on a program for 5 years or more before we get rid of a budget item. Yet we have to consider the commitments of a prior Congress when drawing up requests for the needs of the military in the future.

That is something I think we should study. I don't ask for an answer now.

Secretary **Weinberger**. Anything that would take some of those large chunks out of the individual budget would have some very favorable aspects. I think it is something we would want to look at.

The construction of a second and third year budget so that the committee could consider them together is a perfectly sound idea which I have supported and supported in earlier experiences in local and Federal Government.

We do have to understand the special nature of Defense which requires looking outside the United States at events we don't control.

Mr. Chairman, I would ask permission to put into the record the full statement which I have which has a great many detailed facts and charts rather than read the whole thing to you this morning.

Chairman **Goldwater**. Without objection, that may be done.

[See prepared statement of Secretary Weinberger, p. 27.]

Secretary **Weinberger**. I would like now to summarize and discuss with you and Members of the committee a couple more of the facts that I think are most important. We want to start with two basic facts.

NATIONAL INTERESTS

Our paramount national interests as a Nation are the maintenance of peace with freedom and prosperity for ourselves and for others around the world. We need an international order that encourages self-determination, democratic institutions, economic development and human rights.

Those are our basic broad goals. When people ask what is it that we want, that is essentially what we want and that is a modest agenda in any sense. It is not an aggressive agenda.

We have a strategy goal which is set out in great detail in our annual report which is to deter aggression and coercion against the United States and its allies, our friends and or vital interests. But, we have to bear in mind that if deterrence has failed, then we want to seek the earliest termination of the conflict on terms that are favorable to the United States, and our allies and our national security objectives while seeking to limit the scope or intensity of any conflict that might develop.

So, our fundamental premise is a reactive posture, a defensive posture that reacts. That poses very special problems.

Those are essentially the two things that we need and the things that we want to achieve. How we go about achieving them is expressed and set forth in the annual report of the Department and in the budget that is before you. As Senator Stennis and Senator Nunn and yourself, Mr. Chairman, and Senator Thurmond have all mentioned, it is essential that we have friends and allies because we can't do all of this ourselves.

So, those are the basic things that we have in mind.

Let us start with that first chart that is before you now. I will just run through a set of these charts to highlight the points we want to make this morning.

There are the budget authority figures for the past 2 fiscal years and the one that is now before you. You will see the rate of real growth is 5.9 percent in budget authority. [Chart 1, p. 28.]

The outlay figures are set forth. The outlays, you understand are simply estimates as to what the spending will be. I have been very pleased that our actual outlays have come out less than the estimate because of a couple of factors.

One was inflation and lower costs, and the other was what we would like to call better management in the sense of getting substantial reductions in the actual cost of certain items even though the estimate of costs was printed in the budget. The manufacturers and suppliers knew the exact amount we were estimating therefore we managed to come in well under that in a number of cases through the competition which we aggressively seek.

The next chart shows the way in which this budget has developed.

Senator Nunn, I think it indicates some of the changes that occur if you try 2-year budgets. Maybe your point would be that some of these changes would be minimized.

According to that chart, that would be rather useful. We started out in January 1984, just about a year ago, exactly a year ago, when the 1985 budget was sent to the Congress. At that time the budget authority figure for 1986 was printed in the 1985 budget as being $349.6 billion.

Successive reductions during the course of the preparation of the 1986 budget took away $36.9 billion and brought it down to the figure that is before you of $313.7.

The outlay estimate followed a similar path shown in the second column from $301 billion a year ago down to $277.5 billion.

That is why I make the point so frequently that Defense has not failed to contribute to the deficit reduction program, but has contributed in a very major way by making $24.3 billion in reductions on the outlay side during the course of the 12 months in which the budget was prepared.

We began working Friday on the 1987 budget. That would put the figures that the President has printed nationally in this year's budget. We would hope that we won't have to have the type of reductions that the various events cause.

It is important to bear in mind in that chart that was just there that the present figure before you is now $2 billion below the figure set in the Joint Budget Resolution of the Congress passed 4 months ago for 1986. So, when people talk about an excessive budget, it is a budget which is $2 billion below what the Congress said should be the budget for Defense for 1986 4 months ago.

Now, this shows the way in which we have tried to make reductions on the deficit. For fiscal 1985, and we are talking now about the Federal Government as a whole, the deficit estimate a year ago was $180 billion.

For 1985, now the estimate of the deficit is $222 billion. Part of that results from the fact that $8 billion was lower receipts. That plus sign means it adds to the deficit. It is actually lowered receipts.

Part of it is because outlays went up a net $33 billion for the whole Government. However, before you calculate that net, the growth in non-defense outlays was $51 billion. The Defense Department reduced outlays during fiscal 1985 estimates, now the current fiscal year, by $18 billion.

If it were not for that $18 billion reduction in Defense outlays, the Government deficit would have been that much higher and the outlays would have been $51 billion instead of $33 billion as the budget was submitted in 1985.

The estimates of the 1986 deficit have changed since a year ago. They have gone up $3 billion. We are now estimating a $180 billion deficit for the Government as a whole for the fiscal year 1986 that is before you.

Part of that results from the fact now that the estimate of tax receipts of $21 billion is less than it was a year ago and outlays have gone down $18 billion in the estimate as a result of all the changes that have been made.

But $24 billion of that outlay reduction was contributed by the Defense Department. Again, we are not guilty of the charge of not having contributed to the deficit reduction; we have actually contributed a very substantial share, particularly when you bear in mind that the Defense budget is about 28 percent of the total budget this year. That, I think, indicates very clearly the fact that we have not only cooperated in this effort, but have been a very major, perhaps the largest, contributor to the deficit reduction.

Now, this chart, Mr. Chairman, indicates the point I was making a moment ago, the amount that is carried over. If you look at the 1986 outlays, the green part of the base, 38.3 percent represents $106 billion and that is the amount we spend that is carried over and required as a result of authorization and actions taken in the previous years.

Pay-related is 42 percent. That is the blue bar, still on the right-hand bar.

This year operations are about 7 percent and this year's investment, that is, things that will produce the systems that we will need in the out years, represents about 11 or 12 percent.

The budget authority on the left side shows again the pay-related. That is the blue portion at the bottom.

The budget authority for 1986 does not indicate anything carried because that is the new budget authority requested. The operation is about 22 and this year's investment for authority is 48 percent.

The outlay of that 48 percent this coming year that we are talking about is about 12. So, that indicates a little bit the nature of the problem.

The Department of Defense budget, Mr. Chairman, is usually spoken of as being a controllable feature of the budget. As you can see from the green portion of the right-hand bar, about 38 percent this year, is determined by what happened in prior years.

Now, these are the outlays of the Defense Department as a share of the Gross National Product.

As you see, we are about 7 percent in the current year. We have been as high as 9 percent in 1967, somewhere in the 8 percent range in the early 1960's, so that we are down to a fairly level portion now in the last couple of years. The estimate for the balance of the decade would be around 7 percent of the GNP.

Total Federal outlays as you indicated, Mr. Chairman, have gone up very substantially over the past few years. Defense, while it is now on the rise, was subject to a deep trough in the seventies, a decline of about 22 percent, and has started up in the manner indicated.

But, again, it is a very small proportion of the total Federal budget in the sense that it is way under a third of that budget.

This, again, is a chart which you may be familiar with which shows the way in which Defense and entitlements programs have fared. Defense starting out in 1955 being somewhere in the neighborhood of over 50 percent of the budget, now down around 28 percent.

Entitlements started out around 20 percent, and are now being around 45 percent.

Here is the first chart that is devoted to the basis of the threat that we see against our strategic objectives and our goals that I mentioned at the beginning of this statement.

This should be of particular interest to Senator Nunn because this is output. This is what the Soviets are getting; this is what we are getting and what we have produced over the period from 1975 to 1984, the past decade including 3 years of the present administration. It shows a very substantial balance in favor of the Soviets, 25,000 tanks against 10,900 tanks, 54,000 armored vehicles produced by the Soviets and non-Soviet-Warsaw Pact nations, 54,000 against 18,000.

Field artillery, 24,000 in favor of the Soviets, 4,300 by NATO and United States, and so on. On each of these major items, except major surface warships, we have been out-produced over the past decade by a very substantial amount even though in the past 4 years we have started to regain a very substantial productive capacity.

WAR RESERVE MUNITIONS INVENTORIES

Our war reserve munitions stocks between 1983 and 1986, part of the output, part of what we have bought with the money, have increased as follows: Air Force, 62 percent; Navy, 58 percent; Army, which started from a relatively high base and has a very high total requirement, has gone up 14 percent; Marine Corps, which started at a relatively high base, has gone up about 25 percent.

This chart, Mr. Chairman and members, is the beginning of a series that shows one of the proudest and happiest stories of the Department. This is the military manpower that we have talked about and the way in which the volunteer force is working so successfully now.

HIGHER QUALITY RECRUIT

As you see on the first set of bars on the left, we are now exceeding our goal for all of the services and have done so for each of the fiscal years the last 4 years.

We are also getting a very much higher quality recruit. We had 68 percent high school graduates as recruits for 1980. We now have 93 percent high school graduates.

Reenlistment is substantially up, a very important factor when you bear in mind how much we rely on people who have been trained to help train the recruits. We started out with 55 percent reenlistment in 1980. Now it is 68 percent in fiscal 1984.

Here are the increases in manpower that are requested. This shows the increases that have occurred over the years from 1982 through 1986 including our request. About 69,000 for the military and 79,000 civilian end strength during that period of time. This, of course, is to take care of the increasing military strength that we gained as the Congress has voted for the increased amounts that have been referred to in the beginning of the hearing.

RESERVE STRENGTH

The reserve strength of the National Guard is another extremely critical factor. These have gone up now. As we will see, from fiscal 1982 to 1986 these have gone up in the Army 44 percent; in the Navy 48 percent; in the Marine Corps 3 percent; in the Air Force 13 percent; Army National Guard has gone up 42 percent. 160,000 have been added to the National Guard and the Reserve Forces over that period.

I might say that now the Reserve and the National Guard forces are at the very highest numbers in existence, exceeding the 1959 record when people went into the Reserves to avoid the draft. At the moment, on a volunteer basis, they have been going up steadily.

FORCE MODERNIZATION IMPROVEMENTS

These are the charts, again based on output, which show the force modernization improvements.

These charts show that, on the Army side, we have added some 27 battalions equipped with M-1 tanks, just under 20 new helicopter companies equipped with UH-60s, about 15 new multiple rocket launcher battalions, and 17 infantry fighting vehicle battalions.

On the Navy side we have added additional frigates, the attack submarines, F-18 and F-14 aircraft squadrons and submarines.

I don't know if you have these new charts or not, but we will get them for you. These should be in your package.

For the Air Force, we have added some 14 new F-16 squadrons. Over 1,000 new technical aircraft have been delivered. We've added one additional F-15 squadron.

In the Marine Corps we have a substantial number of new M-198 Howitzer battalions and a substantial increase in F-18 aircraft squadrons. Also, the Marine Corps has increased amphibious battalions and the short vertical take-off aircraft (AV-8A/B) squadrons, again, are now coming in in substantial numbers. We now have two squadrons of AV-8B's compared to zero in 1984.

So, these are some of the output increases that we have obtained over the past 3 fiscal years.

MUNITION STOCKPILES

Munition stockpiles have gone up, particularly in the Navy as new ships are added and in the Air Force and Marine Corps.

The Army, starting from a somewhat higher base, has gone up more gradually.

More, again, on output. This is what we have acquired as we modernized the strategic triad. We have put cruise missiles on most of the B-52s, deployed some 90 of the B-52Gs with cruise missiles. This year we will begin modifying the B-52Hs to carry cruise missiles internally for some of the strategic missions that may be required.

Our budget this year asked for the production of the final group of 48 B-1B bombers which will bring us to a total of the hundred we requested 3 years ago, again an indication of how long these things take to achieve. The fact is that the program was developed for more than 1 year at a time.

The ATB bomber is coming along extremely well. The development of that is continuing pretty well on schedule.

The ballistic missile submarines have exceeded all their design criteria. The twelfth one was authorized through 1985 and we will fund the thirteenth in 1986.

The Trident II D-5 missiles continue, and the initial procurement is planned now for fiscal year 1987 with deployment in 1989.

INTERCONTINENTAL BALLISTIC MISSILES

You are familiar, of course, with the MX missile, and the length of time we have been debating the subject. We had 21 missiles approved through fiscal 1984, 21 more were approved in 1985, but there was a fence around them which we hope will be taken down.

We are successfully proceeding with research and development on the small missile program which was recommended by the Scowcroft Commission, and was authorized by the Congress.

CONVENTIONAL FORCE STRUCTURE

We are making substantial investment in conventional forces. As a matter of fact, the strategic forces have never exceeded more than 13 or 14 percent of the budget and we would not plan to have them do so for the next few years.

On the conventional side, however, we continue expansion of the Navy. We had 479 ships in 1980. We will have 542 at the end of the current fiscal year.

We are forming two new light Army divisions. These will not require additional force structure, since they are being formed by reorganization of existing divisions. One will be based in Alaska and one in New York. There will be no increase in end strength.

We are also making much greater use, as I think you know, Mr. Chairman, of the Reserve and Guard Forces because many of our units now in the Active Army will be rounded out with National Guard and Reserve Forces.

Since 1981, the Active Force strength has increased about 81,000, the Reserve Forces are up about 168,000. Of course, in every way the Reserve Force increases are a very happy part of the story because they can be funded with a great deal less money and they receive much valuable training should they be needed immediately.

Then we have set forth on the chart the benefits we have obtained from our investment in air and sealift and in pre-positioned material capacity, which, of course, enables us to respond much more promptly should we need to do so in various parts of the world.

Of course, the strategy that we have in response to the pressures and threats that we face require us to be able to respond in a number of different parts of the world, possibly even simultaneously.

By the end of the decade starting in 1981 we will have increased our airlift capacity by 80 percent if the programs we have now are supported, our sealift capacity by 110 percent, and pre-positioned material by 150 percent.

These are outputs of significance and it is entirely proper to look at these outputs to see what it is we are getting.

We are very pleased with the way in which the management improvements we are putting into the Department have resulted in sharply reduced cost growth, particularly for the major weapons systems.

At the end of calendar year 1980 the annual cost growth for many of those systems was around 14 percent. The report we submitted at the end of calendar 1983 for calendar 1983 shows a 1 percent increase in that cost growth of major systems.

We are trying to have the most economic rate of production. That is, to buy in quantities that will give us the best possible price for the totals we know we need. So, we saved about $2.3 billion in unit cost savings in some 18 programs. Our 1986 budget anticipates another $100 million savings as a result of these more economic rates of production.

MULTI-YEAR PROCUREMENT

Multi-year procurement which you authorized, very fortunately, in 1982 has resulted in the approval of some 32 multi-year contracts. Projected savings on those after the contract is completed are four and a half billion dollars that we would have to spend if we did not have the multi-year authorization which you voted.

Our budget this year requests an additional six programs for that and anticipated savings from those six is $1.3 billion.

FIXED-PRICE CONTRACTS

We are moving more and more toward increasing the use of fixed-price contracts. One of the things that bothered me most when we came were the contracts that we inherited. Some 82 percent of all procurement dollars are under fixed-price contract with incentives for better work and penalties for poorer work, not on-time work.

We have had a large number of audits and you, Mr. Chairman, mentioned some of the more spectacular of the numbers that have been printed in the papers with respect to individual prices, the famous $400 claw hammer, the $110 diode, and so on.

What has not yet been fully appreciated, because it is a so much more interesting story to read in the left-hand column on that chart, but what is not really known are the facts on the right-hand side.

With respect to the hammers, we were the ones who identified the overcharge. We were the ones who obtained the refund even though the contract was so bad we did not have a legal right to obtain that refund. The same with the diode.

We identified the overcharges, and we got the refund, the same kind of contract. Under the contract we didn't have to pay it. On the wrench we identified the overcharge. We refused to pay the charge, and we didn't buy any of them.

We identified the plastic cap overcharge. We have been paid the refund. We gave a thousand-dollar award to the Air Force sergeant who challenged it. We got refunds even though the contracts didn't entitle us to them because we reasoned with the contractors and discussed with them their desire to continue business with the Department.

It is an effective way to obtain refunds. A better way is to have a contract that does not permit charges of this kind. That is what we are doing our best to do now. There will be one or two others of these I am sure, there may be more than that. We are still finding them because we have the largest audit going in the history of the Department.

We will continue it because we don't want to spend a nickel more than we have to for anything. We certainly don't want to pay outrageous prices.

SAVINGS FROM MAJOR AUDITS

Here are some of the savings that have resulted from these major audits. We have had 18,000 audit reports issued just in fiscal 1984 alone, the last year, of course, for which we have complete reports.

The savings involved in that are a potential $2.7 billion. We have closed 15,000 investigative cases. As you will see, a number of them have resulted in fines. 5,500 cases have been referred for prosecution to the Department of Justice or for administrative action. 548 convictions have occurred in just that one year.

Again, with the Corps of Engineers we have identified some savings of about $20 million. The Inspector General's organization have had some 10,000 reports. We have estimated savings from follow-up actions of $1.9 billion.

We have had 7,800 calls on the Defense hotline that we instituted. That is a mechanism by which people can call in anonymously if they wish to tell us about things that are going wrong. Out of 7,800 a third have resulted in very useful leads that have led us to very real savings. That hotline is being expanded and calls are encouraged.

We have in that same connection a substantial list of additional suspensions of contractors who have not performed well, or who have been guilty, or who have been reported in one way or another to have an unsatisfactory record. Seventy-eight contractors were suspended in 1980, 54 in 1984. Those are, again, figures that indicate a greatly increased amount of enforcement and audit activity that we think is essential to conduct.

I even found, I recall quite distinctly when I was at HEW, that the Department was so large that we would be awarding a contract 1 week after to the same person who had been convicted of an offense the previous week on another contract.

We now have an informational system throughout the Department of Defense, as HEW has, that has the same kind of ability to enable us to suspend, debar and convey that information immediately so that there won't be any more awards to people who are having some serious problems in connection with their ability to carry out Government contracts.

CONVENTIONAL CHEMICAL WAR DETERRENT

I should like to mention just one item that is not in the major statement that you have before you. That is the need to regain a conventional chemical war deterrent. These are very unpleasant subjects. We would much rather that the treaty entered into had not been broken, but the fact is that we face a potential opponent with an enormous chemical capability.

It is vital that we regain both our ability to train soldiers who may be subjected to this environment, but also that we regain a deterrent capability should the treaty be broken again and these chemicals ever be used.

It is an emotional and unpleasant subject that none of us likes to think about. However, those of us who have the responsibility for the safety of the troops and the recommending to you of things necessary for the Nation's security, feel it necessary to raise them.

These are basically the highlights of the statement, Mr. Chairman. I greatly appreciate the opportunity to make them.

General Vessey has some things that I think are extraordinarily important for the committee to hear. I would appreciate it if you could hear his brief statement now and then we will both be glad to try to take your questions, sir.

[The prepared statement of Secretary Weinberger follows:]

PREPARED STATEMENT OF THE SECRETARY OF DEFENSE, CASPAR W. WEINBERGER

Mr. Chairman, members of the committee. It is a pleasure for me to be here today to address the defense portion of the President's fiscal year 1986 Budget. The Congress and the American public can and should take great satisfaction in the progress that this Nation's military has made over the last four years in redressing the deficiencies in national defense capability that the Administration inherited in 1981.

We have significantly strengthened readiness and sustainability, improved our military personnel situation, and initiated a too-long deferred force modernization program. Today we have a stronger, prouder, and better equipped military force than we have had in over a decade. Military morale is high today, the U.S. servicemen and women are held in high esteem by the public, and America's global prestige as the leader and credible defender of freedom has been restored. This did not come easily or without the application of fiscal resources.

President Reagan and the Congress have had to commit to a long-range program to restore and strengthen U.S. national security. The success of that program hangs in the balance as we address the fiscal year 1986 defense request. As pressures mount to reduce the defense budget in an effort to reduce the federal deficit—pressures which I fully recognize and appreciate—it will require a continued resolve by all of us to stay the course. The fiscal year 1986 defense budget request proposes that we not nullify the progress achieved over the last four years by sliding back into the pattern of the 1970's of inefficient and unstable programs, but that we continue to build upon this progress.

The President has shown his resolve to complete the task of rearming America during the difficult decisionmaking process leading to the budget now before you. The total federal budget reflects the Administration's intention to reduce federal expenditures, but not at the expense of our national security needs. It would have been easy for the President to have sought immediate deficit savings through reductions to defense programs, but the result would be an unavoidable weakening of our defense posture now and into the future. The President viewed that course as unacceptable.

Budget Overview

FY 1986 DEPARTMENT OF DEFENSE BUDGET

FINANCIAL SUMMARY

BUDGET AUTHORITY & OUTLAYS

(CURRENT $ BILLIONS)

	FY 1984	FY 1985	FY 1986
BUDGET AUTHORITY	258.2	284.7	313.7
% Real Growth	4.4%	5.9%	5.9%
OUTLAYS	220.8	246.3	277.5

Chart 1

The Congress and the Nation should be aware that the Department of Defense has contributed to efforts to reduce the federal deficit. We recognize that the Nation's security is inextricably linked to a healthy economy and financial integrity. The defense budget request before you reflects a requirement of $313.7 billion in budget authority and $277.5 billion in outlays. This represents a real growth in budget authority of 5.9 percent over fiscal year 1985.

"WHAT HAS ALREADY HAPPENED TO 1986?"

DoD TOPLINE CHRONOLOGY - BUDGET AUTHORITY

(Current $ in Billions)

	1982	1983	1984	1985	1986	TOTAL 1982-1986
March Amendment 1981	221.8	254.5	288.9	326.2	**367.2**	1,458.6
INCREMENTAL ADJUSTMENTS TO PLAN						
Sept 1981 through Sept 1983	-8.0	-15.0	-30.7	-4.6	**-10.8**	-69.1
FY 1985 Budget Jan 1984	-	-	-	-16.6	**-6.8**	-23.4
FY 1985 Rose Garden/ Congressional Enactment	-	-	-	-20.5	**-24.8**	-45.3
FY 1986 Budget Jan 1985	-	-	-	+0.2	**-11.1**	-10.9
TOTAL ADJUSTMENTS since MARCH, 1981	-8.0	-15.0	-30.7	-41.5	**-53.5**	-148.7
Current Approved TOPLINE	213.8	239.5	258.2	284.7	**313.7**	1,309.9

Chart 2

"WHAT HAS ALREADY HAPPENED TO 1986?"

DoD TOPLINE CHRONOLOGY - OUTLAYS

(Current $ in Billions)

	1982	1983	1984	1985	1986	TOTAL 1982-1986
March Amendment 1981	184.8	221.1	249.8	297.3	**336.0**	1,289.0
INCREMENTAL ADJUSTMENTS TO PLAN						
Sept 1981 through Sept 1983	-1.9	-16.1	-29.0	-20.9	**-21.7**	-89.6
FY 1985 Budget Jan 1984	-	-	-	-12.0	**-12.5**	-24.5
FY 1985 Rose Garden/ Congressional Enactment	-	-	-	-5.8	**-15.6**	-21.4
FY 1986 Budget Jan 1985	-	-	-	-12.3	**-8.7**	-21.0
TOTAL ADJUSTMENTS since MARCH, 1981	-1.9	-16.1	-29.0	-51.0	**-58.5**	-156.5
Current Approved TOPLINE	182.9	205.0	220.8	246.3	**277.5**	1,132.5

Chart 3

The fiscal year 1986 request reflects a substantial decrease from the initial estimates developed by this Administration in 1981. Since the Administration's initial defense program was forwarded to the Congress in the March 1981 Budget Amendment, defense budget authority requirements for fiscal year 1986 have decreased by $53.5 billion, while outlay projections have declined $58.5 billion.

Defense Spending

DoD CONTRIBUTION TO DEFICIT REDUCTION EFFORTS

($ in Billions)

	FY 1985	FY 1986
TOTAL FEDERAL DEFICIT		
January 1984 Estimate	180.4	177.1
January 1985 Estimate	222.2	180.0
Increase in Deficit	+41.8	+2.9
RESULTING FROM:		
Lower Receipts	+8.2	+21.2
Outlay Change	+33.6	-18.4
DOD OUTLAYS		
January 1984 Estimate	264.4	301.8
Actual	246.3	277.5
Decrease in DoD Outlays	-18.1	-24.3

Chart 4

Since I appeared before you last year in support of the fiscal year 1985 defense budget, the projection for federal deficits for the two years fiscal year 1985 and fiscal year 1986 has worsened. This unfavorable trend results from estimated decreases in federal receipts for both years. Federal outlays for fiscal year 1985 are $33.6 billion above January 1984 projections, but this is accounted for entirely in the non-defense areas of the government, since defense spending for fiscal year 1985 is now $18.1 billion below the projection made nearly a year ago. Total federal outlays for fiscal year 1986 are down by $18.4 billion, explained entirely by a decline in defense outlays of $24.3 billion.

National Security Requirements

SOVIET GLOBAL POWER PROJECTIONS

Chart 5

As I have noted, the defense budget has made a continual contribution to reductions in government spending. But the defense budget cannot be regarded as a tool of fiscal policy. The defense budget is different from other federal spending. The defense program before you today is developed in response to specific national security requirements. Our requirements are determined by the external threats we see. The defense budget is not a level-of-effort spending program, as is most of the nondefense budget, but is structured to buy a specific capability within a specific timeframe to support specific national security policy goals. We have not witnessed a reduction in the threats facing the United States, her allies, and freedom-seeking people of the world. We have not lessened our global commitments. Nothing occurring in the realm of international affairs would indicate that we could afford to abandon our military program in midstream. Military forces that are strong, ready, and modern are credible and tangible instruments of our national power. As we pursue negotiations for arms reduction, success depends upon our ability to bargain from strength. We cannot jeopardize these efforts by lessening our national commitment to military requirements.

THE THREAT

U.S. national security policy and the military capability to support it are developed in response to the realities of today's threat environment. One of the most certain realities is that the Soviet Union has been engaged in a continuous across-the-board military buildup. Its strategic offensive forces have grown dramatically during the last decade. It has developed and deployed a global offensive capability which far exceeds anything it could require for its own defense. Soviet leaders engaged in this military buildup even during the 1970's when this nation was consciously constraining its defense spending.

The development of many improved Soviet weapons and support systems has been made possible by access to Western technology, whose acquisition is a top priority set at the highest levels of the Soviet government. We cannot afford, as a nation, to ignore what the Soviets are and what they have done: the totalitarian nature of their government; the dedication of vast resources to military purposes without concern for their overall economy or the quality of life for their people; and the secrecy inherent in their closed society. Clearly, we must acknowledge the significant difference in our societies and systems of government and try to channel the long-term competition between us toward more stable and peaceful areas.

It is not just the Soviet Union that threatens world stability and U.S. interests. In 1984, the military forces of 20 countries were involved in conflicts in 11 areas of the world. Most of these areas involve interests or contain resources essential to many nations, including our own. One does not have to search far to discover instances of military incursions, or attempted incursions, into countries of the Third World. The Soviet Union and its ally, Cuba, have taken advantage of the social, political, and economic problems of the countries of Latin America to support insurgency, terrorism, and efforts at destabilization. The same is true in many regions of Africa. The Soviets have also supported nations, such as Vietnam, Libya, and Syria, that are engaged in aggression against neighboring states. The Middle East exists in constant turmoil. Lebanon continues its struggle to find acceptable solutions to its complex problems. While America and her allies enjoy the benefits of peace, we cannot ignore the implications of conflict in other areas of the globe. The world society has become too complex for that.

RESURGENCE OF ALLIANCES

The resurgence of a sense of unity and greater cooperation between the United States and her allies bears witness to the fact that this nation is resuming its rightful role as a world leader and that our efforts are being reciprocated by our friends. At the NATO meeting in December, our allies increased their financial commitment to the modernization and expansion of conventional defenses. Likewise, Japanese defense budgets are slowly increasing as Japan prepares to implement its policy of defending its territory, air space, and sea lanes out to 1,000 miles. Like the armed forces of the United States, the military forces of our friends are better equipped, trained, and prepared than ever. By strengthening conventional forces, the United States and her allies have sought to restore a balanced deterrent and to reduce the reliance on nuclear arms.

The Soviet Union has not been oblivious to the continuing improvement in the military posture of the Western nations as well as the renewed commitment to take the necessary steps to defend our interests worldwide. We seek peace through our commitment to strength, and we are also prepared for meaningful arms negotiations. We seek to negotiate, but from strength. We must provide the Soviets with the incentive to agree to arms reductions and we have sought to do so-I think with great success-through diplomatic efforts as well as the strengthening of our military forces.

IMPROVEMENTS IN DEFENSE

Remarkable progress has been made in fulfilling the President's mandate to strengthen America's defenses. I would like to take a moment to highlight the progress made to date and to present the challenges that remain.

READINESS FACTORS - PERSONNEL

Recruits with High School Diplomas (percent)

Service	1980	1981	1982	1983	1984
Army	54	80	86	88	91
Navy	75	76	79	91	93
Marine Corps	78	80	85	92	93
Air Force	83	88	94	98	99
Total	68	81	86	91	93

First Term Reenlistments (percentage of eligible)

Army	50.6	55.0	58.6	45.3	43.8
Navy	36.7	41.7	50.3	55.7	58.0
Marine Corps	23.2	26.6	34.0	33.3	39.5
Air Force	35.8	42.9	56.9	65.8	61.9
Total	39.1	43.0	52.9	51.6	51.2

Chart 6

Readiness and sustainability continue to improve. Perhaps our most dramatic and rewarding success is in the improved quality and increased commitment of our personnel. In fiscal year 1984, over 93 percent of our new recruits had high school diplomas, the highest level in our history. The overall reenlistment rate was 68 percent in fiscal year 1984, with first-term reenlistments up 31 percent since fiscal year 1980. This marked increase in the education and experience level has resulted in improved leadership, discipline, and maintenance within our forces. Our military forces today are better prepared for the challenges that may confront our national security than at any time in our history. Once again American men and women are wearing their military uniform and serving with pride.

Readiness and Sustainability

TRAINING IMPROVEMENTS

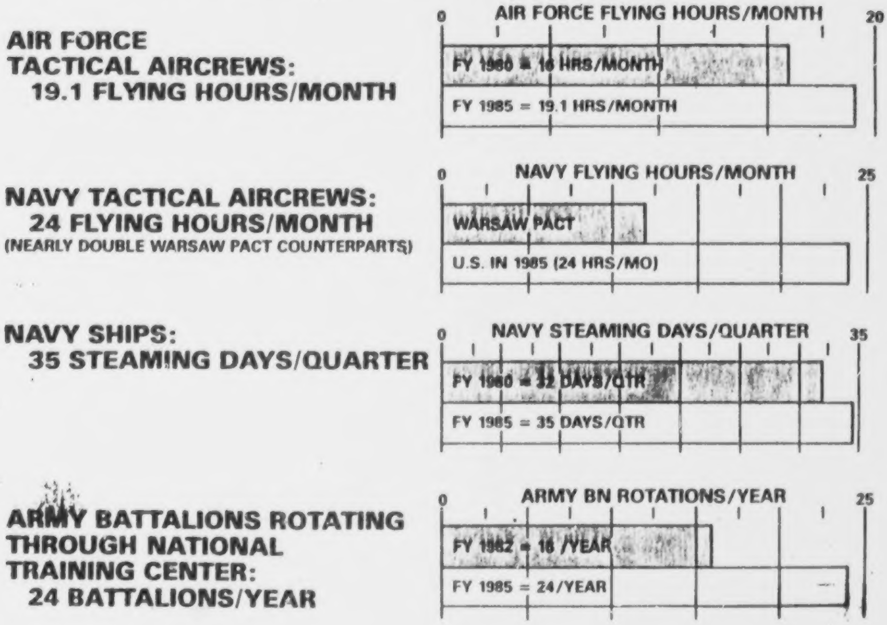


Chart 7

Contributing to this improved readiness is the emphasis placed upon increased and more realistic mission training opportunities for military personnel. Air Force and Navy air crews are flying more hours per month; Navy ships are steaming more days; the Army has increased its rotations through the National Training Center; and Marine unit training days and deployments continue on a upward trend. As a result, we can be confident that our people are capable of making maximum use of the increasingly complex weapons and equipment at their disposal. This could prove decisive in situations where our enemies have a numerical advantage. Navy fighter pilots, for instance, averaged 24 flying hours a month in fiscal year 1984, more than double that of their counterparts in the Warsaw Pact.

Increased availability of spares and repair parts and supplies, along with improved maintenance, have resulted in a significant increase in the operational availability of our equipment and weapons. Today, more ships are rated ready and more aircraft are deemed mission-capable than was the case in January 1981. Gone are the days when ships could not put to sea for lack of personnel and equipment.

During the 1980's, we made major improvements in the working and living conditions of our service members. For many years, military construction was seriously underfunded due to lack of support by prior Administrations and the Congress. As a result, there has been a growing backlog of facility needs estimated to be in the range of $50 billion. This can be generally characterized as the amount of physical plant that is obsolete, dysfunctional, unsafe, energy-wasteful, or that falls seriously short of meeting habitability standards. As a result, severe penalties are paid through inefficiency of operations, higher operating costs, and low morale. The fiscal year 1986 request represents a positive initiative to reverse the past negative trend. This should have a direct and positive effect on readiness.

The fiscal year 1986 construction program supports major weapon systems initiatives such as the B-1 bomber, MX/PEACEKEEPER, TRIDENT, and the Ground Launched Cruise Missile. It also provides initial funding for the stationing of the Army's two new Light Infantry Divisions, funds construction for the guard and reserve units, and supports the NATO infrastructure program.

The fiscal year 1986 program includes $33 million for a new appropriation account entitled, "Defense Facilities Replacement." This account will finance the construction of replacement facilities at alternative locations for functions currently sited on parcels of real estate having high commercial value. Once the functions are relocated, the vacated property will be sold. Each of these is to be a profit-making transaction. Part of these profits will be applied to the reduction of the national debt.

INCREASES IN WAR RESERVE MUNITIONS INVENTORIES*

Between FY 1983 and FY 1986, war reserve munitions stocks will increase by:

ARMY	14 %
NAVY	58%
AIR FORCE	62%
MARINE CORPS	24%

*Ammunition, ordnance, missiles

Chart 8

Of course, it is not enough to have our people and equipment ready, we must be able to sustain them should they be called into combat. With the support of the Congress, we are working to maintain steady growth in our war reserve stocks. The materiel procured during the past three years will, when delivered, increase our munitions stocks by 14 percent for the Army, 58 percent for the Navy, 62 percent for the Air Force, and 24 percent for the Marine Corps. Through the Industrial Preparedness Planning Program, we are continuing our efforts to improve the surge and mobilization responsiveness of our industrial base.

Force Structure Improvements

CHANGES IN CONVENTIONAL FORCE STRUCTURE

Continued expansion:
  600 ship Navy by FY 1989
    - 479 ships end of FY 1980
    - 542 ships end of FY 1985
  Two new Light Divisions being formed by the Army:
    - 10,000 man light infantry divisions
    - based in Alaska and New York
    - no increase in end strength
  Land and tactical forces - increases in end strength since FY 1981
    - active force strength up approximately 102,400
    - reserve force end strength up about 215,000

Investment in Airlift, Sealift, and Prepositioned Materiel capacity:
  Provides ability to respond promptly to crisis
  From FY 1981 to the end of the decade:
    - airlift capacity up by 80 %
    - sealift capacity up by 110 %
    - prepositioned materiel up by 150%

Chart 9

The fiscal year 1986 budget does not seek a major new expansion of our active force structure. Rather, we have sought to maintain and enhance the qualitative edge U.S. forces have traditionally possessed. Ongoing force structure improvement will continue, including the expansion of the Navy to 600 ships, creation of two new light divisions within the Army—without increasing its end strength—and modest increases in tactical aircraft.

The Air Force will procure 48 F-15 aircraft in fiscal year 1986, an increase of 6 over fiscal year 1985, and 180 F-16 aircraft, an increase of 30 over fiscal year 1985. The Navy plans to buy 12 EA-6B aircraft, and increase of 6 over fiscal year 1985 procurement, and 46 AV-8B aircraft, an increase of 14 over fiscal year 1985. We have stepped up the pace of our ground force modernization programs. The fiscal year 1986 budget requests 840 M1 Abrams tanks, 716 Bradley Fighting Vehicles, and 117 Sgt. York (DIVAD) Guns. Investment in strategic mobility capabilities has been enhanced. Additions to airlift, sealift, and prepositioning programs through the fiscal year 1986 budget will meet 70 percent of U.S. mobility goals, up from only 37 percent in fiscal year 1981.

While we have limited the growth of the structure manned by the active components, increased reliance is being placed on the reserve components. The fiscal year 1986 budget represents a 7 percent increase over the fiscal year 1984 Selected Reserve end strength. In addition to increased manning, reserve forces are being brought up-to-date with modern equipment. In fiscal year 1985, Army and Marine Corps Reserve units are scheduled to receive more than 10,000 new items, costing about $1.4 billion. Included in this list are 180 M1 tanks, 64 Bradley Fighting Vehicles, 41 M-198 howitzers, over 3,000 modern support vehicles, and 2 KC-130T refueling aircraft.

The F-14 and F/A-18 are being introduced into the Naval Reserve tactical airwings. By the end of fiscal year 1986, 15 modern FF-1052 and FFG-7 frigates will have been transferred to the Naval Reserve Fleet. Air Force reserve component fighter forces have received the F-16 aircraft and F-4C/Ds are being replaced with more capable F-4E aircraft. In fiscal year 1986, they will receive the F-15. The C-141 and C-5 strategic airlift and the C-130 tactical airlift aircraft are expanding the Air Reserve Forces's inventory. Additional emphasis is being placed on more realistic and intensive training of Guard and Reserve units. Improved manning, equipping, and training of the reserve components will permit them to take on additional missions, while maintaining the combat capability of the Total Force.

Strategic Triad

STRATEGIC TRIAD MODERNIZATION

Bomber force:
- Cruise missiles on B-52s:
    - Deployed on 90 B-52G's
    - FY 1986 begins modification of B-52H's
- FY 1986 funds production of last 48 B-1B bombers
- Development of Advance Technology Bomber for deployment in early 1990's

Ballistic Missile Submarines:
- TRIDENT submarines have met or exceeded all design criteria:
    - 12 TRIDENT submarines authorized through FY 1985
    - 13 th TRIDENT submarine funded in FY 1986
- TRIDENT II missile development continues with initial procurement planned for FY 1987

Intercontinental Ballistic Missiles:
- MX/PEACEKEEPER Missile:
    - Performing at or above expectations in all areas:
    - Approval for 21 missiles through FY 1984; 21 missiles authorized in FY 1985; 48 missiles funded in FY 1986 request.
- R&D on small missile concept

Chart 10

The fiscal year 1986 budget continues our efforts to modernize all three legs of the strategic triad. This modernization is crucial to our efforts for strengthening our nuclear deterrence and providing incentives for the Soviets to cooperate in negotiations for genuine arms reductions. Bomber forces will continue to be modernized with the installation of cruise missiles on B-52s, continued production of the B-1B bomber (which will come in on schedule and within or under budgeted costs), and development of the Advanced Technology Bomber. The three Trindent submarines already at sea continue to meet or exceed all performance criteria and dramatically enhance the sea-leg of our triad. Development of the Trident II (D-5) missile is continuing and will provide our ballistic missile submarines with the ability to place hardened Soviet assets at risk.

The MX/Peacekeeper missile remains the essential element of the President's strategic modernization program. Progress continues on the procurement of this deterrence capability consistent with the recommendations of the Scowcroft Commission. The MX missile is performing at or above expectations in all areas and is within schedule and budgeted cost. It is important that the Congress vote for the release of fiscal year 1985 MX funds, approve the fiscal year 1986 funding request, and allow us to complete this critically needed program. We have no other near-term response to the Soviet strategic offensive challenge and, clearly, the success of this program has played a vital role in convincing the Soviets to return to the arms reduction negotiating table. Peacekeeper demonstrates to the Soviets that we are serious about redressing the imbalance in strategic forces and that they cannot expect to maintain an advantage in this area. Ongoing research and development of a small missile concept, again consistent with Scowcroft Commission recommendations, is additional evidence that we intend to guard U.S. deterrence capability.

INF DEPLOYMENT

The NATO agreement, achieved just last December, to nearly double its infrastructure funding should send strong signals to the Soviets and their allies that the Alliance is most serious about strengthening its conventional forces. This agreement, in conjunction with the continued support of NATO countries in the deployment of Pershing II and cruise missiles on their soil has reaffirmed the unity of the NATO community and its determination to take the necessary steps to maintain a credible and effective deterrent force in the face of the growing Soviet threat. The acceleration of NATO infrastructure funding for air base facilities and aircraft shelters for our reinforcement aircraft will greatly improve our ability to exploit the qualitative superiority of our tactical air forces during a crisis.

SDI

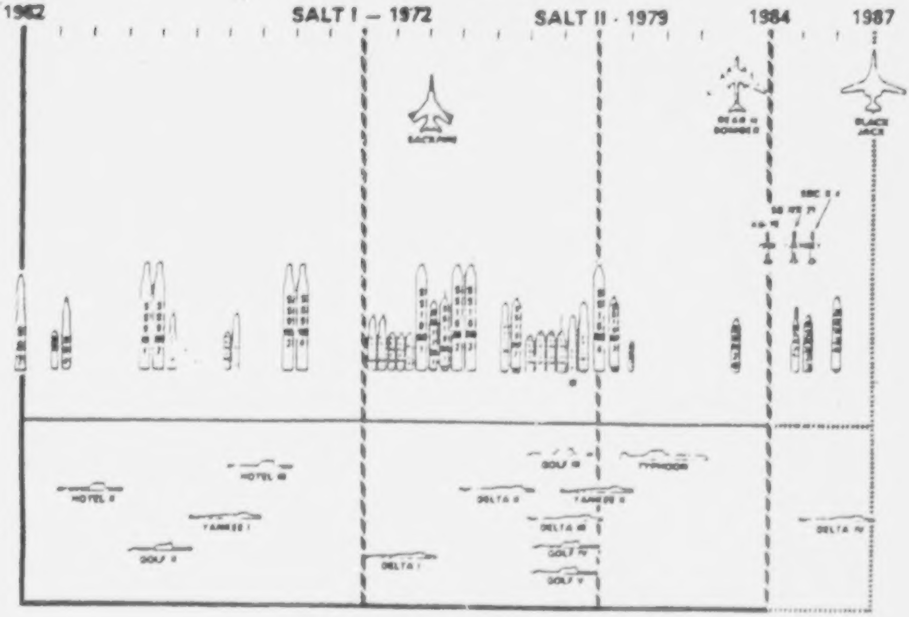
Our efforts to reduce the reliance on nuclear armaments in Europe through this expansion of conventional forces is just one expression of the President's desire to reduce the threat of all nuclear weapons. The most effective means to lessen this theat is through the continuation of the Strategic Defense Initiative (SDI). We are exploring technologies which promise to provide options for effectively defending against ballistic missile attacks—whether directed at the United States or our allies. Such technologies could deny the Soviets the objectives of their attack, thereby discouraging them from even considering such an attack. As such, SDI would serve as a most effective enhancement to our deterrent capability.

There is no denying that our Nation is now totally vulnerable to Soviet nuclear missiles. Our defense has been the threat of retaliation with our offensive weapons. The SDI is based on a different philosphy of deterring war by being able to defend against attack on the United States or its allies with sufficient effectiveness to deny the Soviets their military objectives. As such, these defensive systems would contribute to deterrence and, in the unlikely event that deterrence should fail, would save lives by significantly reducing the scope of destruction that would result from a Soviet attack.

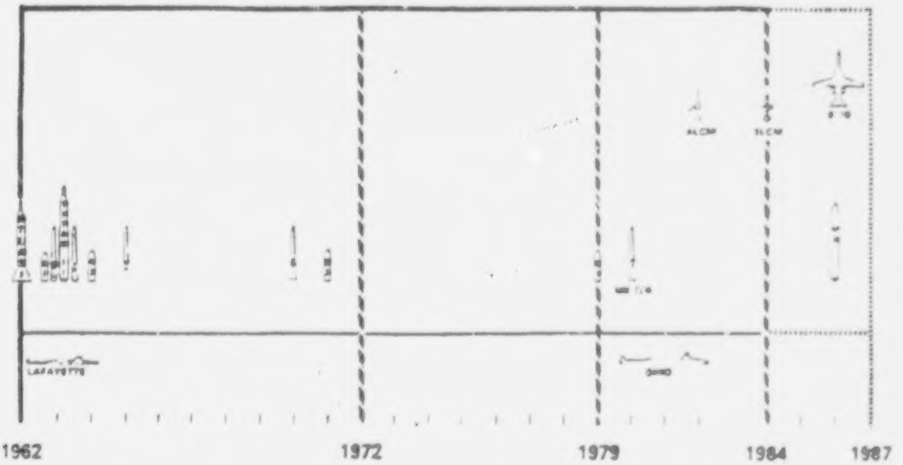
Arms Reduction

INTRODUCTION OF STRATEGIC SYSTEMS BY YEAR

SOVIET UNION



UNITED STATES



*AVAILABLE INFORMATION ON THE SS-16 IS INCONCLUSIVE, BUT INDICATES PROBABLE DEPLOYMENT

Chart 11

The most important means to alleviate the threat of nuclear weapons is arms reduction, hopefully leading to the complete elimination of such weapons. The United States has a history of restraint in its nuclear forces. Today, our stockpile (including warheads for nonstrategic systems) has 25 percent fewer nuclear warheads and 75 percent less nuclear explosive power (measured in megatonnage) than we had in the 1960's. We are currently in the process of implementing reductions in NATO's nuclear arsenal. Unfortunately, the Soviets have not responded to our efforts to achieve a stable balance at lower force levels.

The United States is committed to the pursuit of far-reaching nuclear arms reductions that are equitable and verifiable. Agreements like SALT I and II that simply limit or slow the rate of, and thus legitimize, future growth are not enough. At best, they divert us from the important task of achieving actual reductions. Further, the record of Soviet noncompliance with earlier arms control agreements demonstrates how vital it is that future accords be precisely drafted and include effective verification provisions.

In the Strategic Arms Reduction Talks (START) and the intermediate-range nuclear force (INF) negotiations, the United States proposed deep cuts in nuclear arms, focusing on the systems of greatest concern to each side. Regrettably, the Soviet Union walked out of the INF talks in November 1983, and shortly thereafter refused to agree to a date for the next round of START.

Last fall, the United States and the Soviet Union agreed to begin negotiations on the whole range of questions concerning nuclear and outer space arms. Secretary of State Shultz and Soviet Foreign Minister Gromyko met in Geneva in January 1985 to discuss the agenda and objectives of those negotiations. This step marks a welcome new beginning. We have a long and difficult task ahead of us, but if we are patient and persistent, I have every hope that we can achieve the deep reductions of nuclear weapons and increased strategic stability that are in the best interests of the United States, the Soviet Union, our allies, and the entire world. In order to reach that end, we must retain the same determination to preserve the military that has now encouraged the USSR to return to the negotiating table. Our firm commitment to needed nuclear force modernization, to the continued development of the antisatellite (ASAT) capability, and to the Strategic Defense Initiative is vital to the success of the coming negotiations.

Management and Acquisition Improvement

ACQUISITION IMPROVEMENTS

Cost Growth for Major Weapon Systems:

end of CY 1980	14%
end of CY 1983	1%

Economic Production Rates:

- In FY 1983, saved $2.3 billion in unit cost savings for 18 programs
- FY 1986 budget anticipates an additional $100 million in savings

Multiyear Procurements:

- From FY 1982 - FY 1985, Congress has approved 32 multiyear contracts, for a projected savings of $4.5 billion
- FY 1986 budget requests an additional 6 multiyear programs with anticipated savings of $1.3 billion

Increased Use of Fixed Price Contracts:

- In FY 1981, 75% of all procurement dollars were under fixed price contracts
- FY 1984, 82% of all procurement dollars were under fixed price contracts

Chart 12

Each year, since I became the Secretary of Defense, I have come before you to discuss the Acquisition Plan initiated within the Department. This plan incorporates such reforms as multiyear procurement and enhanced competition to bring costs under control. The results have been most encouraging. The Congressional Budget Office has confirmed that annual cost growth on selected major systems has been reduced from 14 percent in 1980 to only 1 percent by the end of 1983. And, in the first three quarterly reports required by the Congress on these programs in 1984, our projected costs have actually gone down. In addition, several major programs, once in trouble, are back on track. The last four Trident-equipped submarines were delivered to the Navy four to seven weeks early and the ships now under construction are on or ahead of negotiated schedules. The engine problems of the M1 tank have been solved and the tank is winning praise even from its European competitors.

We have employed more economic production rates for programs such as the P-3 and F-16 aircraft and have saved $2.7 billion in procurement costs as a result. Through greater use of competition and tough negotiating for its ships in 1984, the Navy saved enough to finance the entire cost of renovating the battleship USS Missouri. In addition, we have increased the use of cost-efficient fixed price contracts from 75 percent three years ago to 82 percent today. Further, multiyear procurement programs approved by the Congress thus far for fiscal year 1981 through fiscal year 1985 will save the Department of Defense over $4.5 billion.

Waste, Fraud, and Abuse

DoD EFFORTS TO STOP WASTE, FRAUD AND ABUSE IN FY 1984

0	Audits of internal management of DoD operations and programs	-- Reports issued	18,532
		-- Potential savings	$2.7 billion
0	Investigative cases	-- Cases closed	15,837
		-- Cases referred for prosecution or administrative action	5,546
		-- Convictions	548
		-- Fines, penalties, restitutions and recoveries collected from referrals to Justice Department;	18,031
		to Military Departments	11,151
0	DCAA audits	-- Reports issued	61,081
0	Army Corps of Engineers Contract Audit	-- Reports issued	416
		-- Net savings from reports closed	$20.1 million
0	DoD inspection organizations	-- Reports	10,102
0	Follow-up actions completed	-- Audit recommendations	63,351
		-- Estimated savings	$1.9 billion
0	Defense Hotline	-- Calls and letters received	7,820

Chart 13

We have made dramatic progress over the last four years in our ability to detect and curb waste, fraud, and abuse. The Inspector General's staff has completed over 68,000 internal audits. In fiscal year 1984 alone, there were 18,532 audit reports issued by the Inspector General's Office on the internal management of DOD operations and programs. But, the real measure of success lies in our ability to follow-up on these audits and, in this area, we have clearly made great strides. Over the past three years, 156,410 corrective actions have been completed on 50,939 DOD internal audit reports. During the same period, 2,350 corrective actions have been instituted on 1,077 General Accounting Office (GAO) reports.

DCAA

The Defense Contract Audit Agency (DCAA) is a separate agency within the Department of Defense that conducts world-wide audit activities. In fiscal year 1984, the DCAA issued over 61,000 audit reports. The number of cases of contractor fraud reported from fiscal year 1981 through fiscal year 1984 has increased four fold. The percentage of audit exceptions sustained also increased from 55 percent in fiscal year 1981 to 65 percent in fiscal year 1984. There has been significant cost avoidance in procurement contracting due directly to these contract audit efforts.

CRIMINAL INVESTIGATIONS

The Department continues efforts to detect and prosecute criminal fraud. We have established a new unit specializing in the investigation of white collar crime, the Defense Criminal Investigative Service. We have set up a special Defense/Justice Department procurement fraud unit. We reactivated the DOD Hotline, which has produced $3.5 million in documented savings since May 1982.

Spare Parts Procurement

INTERNAL DOD AUDITS

You heard about the	But did you know that
$400 claw hammer	- DoD identified the overcharge, and obtained a refund from the contractor.
$110 Diode	- DoD identified the overcharge, and obtained a refund from the contractor.
$9,000 Wrench	- DoD identified the overcharge, and refused to pay.
$1,100 Plastic Cap	- DoD identified the overcharge; obtained a refund; and gave a $1,100 award to the Air Force Sergeant who challenged the price.

Chart 14

You have all heard of the problems we have experienced in our spare parts procurement. What is often not heard is that most of those pricing abuses were uncovered by DOD auditors before one defense dollar was spent. It was our own auditors that uncovered some serious problems with the way we procured our spare parts. Such was the case with the $400 hammer, the $110 diode, the $9,000 wrench, and the $1,100 plastic cap. As a result, we initiated efforts to overhaul our system of spare parts acquisition. The results have been encouraging. Industry leaders are providing excellent cooperation, even to the extent of initiating their own spare parts awareness programs. We have received over $2.1 million in refunds from over 250 contractors, while 370 Defense Department personnel have received a total of $200,000 in awards for identifying overpricing. We established a Deputy Assistant Secretary of Defense to act as a single focal point for spare parts management initiatives. Additionally, each Military Department has initiated a new spare parts reform plan to seek savings through vendor breakout and greater use of competition in spare parts procurement.

OVERHEAD REDUCTION

All of this reflects what we have done in the last few years. Let me now discuss briefly two areas that we intend to pursue rather vigorously in the year ahead. We plan to place particular emphasis on reducing contractor overhead costs, which make up one-third of the price charged by prime contractors for weapon systems. In August 1984, my Undersecretary for Research and Engineering initiated a joint service review of these contractor costs. In the coming year, we will build upon the results of that survey by establishing some principles of overhead cost control and by working with industry to develop incentives for reducing overhead costs.

ELIMINATION OF OVERSPECIFICATION

Secondly, we will be intensifying our efforts to eliminate overspecification in defense contracts. We have made it a top-level management priority, not only in the Department of Defense but within industry, to streamline the standards and specifications that govern our procurements. Initial response to this effort has indicated first rate cooperation from industry. The Council of Defense, Space, and Industry Associations has given us their full support, as have many individual contractors. We expect to reap great rewards from this effort, not only in savings but in increased productivity.

Congressionally Imposed Requirements

INCREASES IN CONGRESSIONAL DIRECTIONS
FY 1970 - FY 1985

	FY 1970	FY 1976	FY 1978	FY 1982	FY 1984	FY 1985	% increase FY 1970-1985
Reports and studies requested by Congress	36	114	153	221	422	458	1172%
Other actions directed by Congress	18	208	229	210	202	202	1022%
General Provision in the Law	64	96	101	158	217	213	233%
Total directions by Congress	118	418	483	589	841	873	
Line item dollar adjustments (program changes):							
Defense Authorization	180	222	270	339 1/	958 2/	1,315	631%
Defense Appropriation	650	1,032	1,183	1,119	1,735	1,848	184%

1/ O&M not previously authorized.

2/ Ammunition procurement and other procurement not previously authorized.

Chart 15

While I have this opportunity, I would like to address a matter of growing concern to me and others in the Department. This involves the significant increase in the number of reporting requirements levied on the Department during the course of congressional review of our programs each year. Since fiscal year 1970, the number of reports and studies requested by the Congress has increased almost 1,200 percent, with no apparent end in sight. Many of these are quite complex and time-consuming, not to mention their effect on higher priority projects that may go unattended because of competition for the resources to accomplish many tasks simultaneously.

In addition to these reporting requirements, the number of statutory provisions has increased 233 percent, despite our annual recommendation that many of them be deleted. Many of these provisions impose burdensome restrictions and limitations on the Department, all of which are legally binding and often result in increased costs.

In spite of the tremendous workload imposed by these requirements, Congress continues to reduce our headquarters staffing as well as cut our request for funds to conduct studies and analyses.

As you begin your deliberations on our fiscal year 1986 budget request, I ask that you carefully scrutinize additional requirements imposed by bureaucratic procedures and legislative detail. We will do our best, of course, to cooperate with you and your staff to provide data that will assist in your review of our programs. We have placed great emphasis over the last few years on improving the overall management of the Department including the efficient utilization of headquarters personnel. We plan to continue this effort. We will need your assistance in this and hope that we can count on you to minimize the burden imposed on the Department by excessive reporting requirements and legislative provisions. In a spirit of cooperation, I believe that we can work together to eliminate these types of inefficiencies from the budget review process.

Another matter of concern is the mandatory transfer of our overseas dependents schools to the Department of Education, now scheduled for May 1986. Congress has postponed this transfer twice, but has not passed a permanent repeal. Both the Department of Defense and the Department of Education endorse a permanent repeal of the transfer requirement.

CONCLUSION

As Congress reviews and considers the fiscal year 1986 defense budget request, I would like to urge, once again, that it not be lured by the deficit situation into making additional reductions to defense. I fully recognize the political process which requires that all parts of the Federal budget must contribute to controlling government spending. But I would ask Congress to recognize the $58.5 billion in reduced spending that the fiscal year 1986 defense program has already incorporated. We cannot continue to reduce further and achieve our national security goals. Many of the defense dollars requested here today will provide weapons, equipment, or facilities as much as five years from now. The defense budget anticipates the nation's security needs over the long-term. It is too easy to make reductions today and ignore the long-range implications of such actions. We are struggling back from the consequences of that precise behavior in the 1970's. In developing the budget before you, the President and his advisors engaged in the same debates, confronted the same challenges that now face you. The President did not opt for the easy road. His decisions were based upon the vision not just of today's needs, but of tomorrow's as well. I and the entire Department of Defense are prepared to assist you in understanding the defense requirements contained in the President's fiscal year 1986 Budget and to answer any of your questions. Thank you.

Chairman GOLDWATER. Thank you very much, Mr. Secretary.

General Vessey?

STATEMENT OF GEN. JOHN W. VESSEY, JR., CHAIRMAN, JOINT CHIEFS OF STAFF

General VESSEY. I am pleased to be here today and I am particularly pleased to see Senator Stennis here.

Mr. Chairman, you and Senator Stennis, Senator Nunn, Senator Thurmond, all spoke of the need for a strong defense. Secretary Weinberger has reinforced that. He has covered many of the highlights of the budget and points out why this budget is a sound basis for that strong defense.

I have a prepared statement and I would like to have it included in the record along with the U.S. Military Posture for fiscal year 1986.

I would like to emphasize a few points in my prepared statement.

[See "United States Military Posture Fiscal Year 1986," prepared by the Organization of the Joint Chiefs of Staff, for Gen. John W. Vessey, Jr., Chairman, Joint Chiefs of Staff; p. 453.]

U.S. MILITARY POSTURE

The first thing I would like to say is that the military posture of the United States is good and it is getting better. Our forces are manned by very good and capable people, as you pointed out, Mr. Chairman. Their armament is improving with the fielding of weapons from long delayed modernization programs. More important than that, the training has improved substantially and they have better support behind them. By every common sense measure, we are readier to defend ourselves than we have been at any time in recent years due to the support of the Congress and American people. On behalf of the Joint Chiefs and the men and women of the Armed Forces, I want to thank you for it and ask your continued assistance.

Good people are the heart of the Armed Forces. It is important that we do what is necessary to maintain good recruiting and retention. About half of the forces today are careerists. We have the best corps of non-commissioned officers that I think we have ever had. Shortages in the key non-commissioned officers that existed in the mid to late seventies are about cured. By every measurement standard, we have a well-trained and very well-disciplined, capable force defending the country.

MODERNIZATION PROGRAM

The new, good equipment from the modernization program has made a great increase in capability. The Secretary pointed out many of those. Just this last year alone, the services fielded 769 M-1 tanks, 598 Bradley fighting vehicles, 120 Blackhawks, 72 Multiple-Launch Rocket Systems, 11 of the new Apache attack helicopters, 187 new fighters for the Air Force, 46 ships, including 16 war ships, and 282 aircraft for the Navy, plus thousands of trucks and communications gear and things of all sorts.

More importantly, we have added increased capability. I told you when we met privately about seeing the M-1 Abrams tank fielded in Europe and being told of the increases in first round hit capability, both for day and night firing. It is almost a 50-percent increase in the first round hit capability of the crews. In the tank gunnery qualification test scores between the M-1 and M-60A3, which is also a good tank, the M-1 crews scored about 46 percent higher.

We have about 2,000 Bradley fighting vehicles now which means 2,000 mechanized infantry squads can knock out tanks at ranges over 2 miles where up to this time they were limited to about 800 meters.

The F-16 fighter is being fielded in increasing numbers and, by any standard, it is the best single-engine fighter in the world. The bombing accuracy that it gets with conventional bombs is as good as what the F-4 did with guided weapons a few years ago.

The new fighters, the F-16 and F-18, are requiring only about half the maintenance manhours per flight hour than the airplanes they are replacing.

The Aegis' fire control system on the new anti-air warfare cruisers adds about a nine-fold increase in the air defense capability of carrier battle groups.

The SL-7 roll-on/roll-off fast sealift ships that have been added to the force add a great deal to our ability to deploy. In the Reforger exercise last fall one of those ships moved 271 tracked vehicles, 652 wheeled vehicles and 230 military containers, all loaded in less than 36 hours. It was capable of traveling from Beaumont, Texas, to Antwerp in 6 days instead of the 13 days required before that.

FORCES WELL TRAINED

The forces are well trained. The investments we have made in training and research have improved training methods in all the services and that has added to combat capability.

The budget that has been submitted is balanced. The Joint Chiefs of Staff have participated fully in its development. We believe that it improves our military posture and it is an incentive for Soviet restraint. It certainly provides an incentive climate for negotiations.

My written statement points out the importance of continued emphasis on the modernization of both the conventional and nuclear forces, in maintaining training levels and increasing our war reserves sustainability.

In my statement I point out the need to modernize our chemical warfare retaliation capability. The Secretary just did that, but I would like to hit it again. If we don't have that capability to retaliate, we put our people on the battlefield at a terrible disadvantage in having to fight in protective suits and the enemy knows of that disadvantage. We don't want to be at a disadvantage.

STRATEGIC NUCLEAR FORCE MODERNIZATION

I should like to say a couple of words on the strategic nuclear force modernization. The triad is the umbrella under which all our deterrent forces operate. The triad is designed as a deterrent, not as a first-strike capability. It is important that we continue to modernize it.

We maintain the three elements of the triad to provide a hedge against surprise, both technical and tactical surprise, and it is important that we continue to have the triad.

The modernization is going along well with the bomber force and the ballistic submarine force; but in the intercontinental ballistic missile force modernization has had delays which are known to this committee. The delays with the MX fielding are not technological or system delays. The missile is performing superbly and the Joint Chiefs of Staff urge immediate deployment of the Peacekeeper.

Let me say just one last word on the people business. As we have said, good people are the heart of the Armed Forces. No matter what we do in terms of buying equipment, unless we have good people, we won't have good Armed Forces. It is important that we continue to keep up what is needed to be done to keep good people in the Armed Forces.

In summary, the Joint Chiefs have examined the strategy and the threat. We believe this budget will continue to improve our forces by providing good people, good equipment, good training, and good support. We don't need to match the Soviets man for man or weapon for weapon, but we have to deal with that unrelenting growth of Soviet military manpower and the realities it imposes on this world.

I urge your support for the defense budget.

Thank you.

[The prepared statement of General Vessey follows:]

Prepared Statement of Gen. John W. Vessey, Jr., USA, Chairman of the Joint Chiefs of Staff

Mr. Chairman and members of the committee, I report to you that the military posture of our Armed Forces is sound. The forces are manned with good, capable people; their armament is being improved with good, modern equipment; their training has been improved; and they have better support behind them. By every common sense measure, our forces are more ready than at any time in the recent past. These improvements are due to the support of the American people and the Congress; and, on behalf of the men and women in our Armed Forces, the Joint Chiefs of Staff and I thank you for your support. We ask for your continued assistance in the fiscal year 1986 budget.

Good people are the heart of our forces, and I am pleased that the favorable trends reported last year generally continue. Recruitment and retention are good. About 50 percent of the force are careerists. We have a fine corps of non-commissioned officers. By every standard, we have well-disciplined, dedicated, capable Service men and women who are proudly serving their country. We need to continue to support the programs which will ensure our Armed Forces are manned by intelligent, trained, well-disciplined soldiers, sailors, airmen, and marines.

Our forces are better equipped. New, good equipment from long-delayed modernization has made its way into the hands of our forces—active, reserve and National Guard. In fiscal year 1984 alone, the equipment added to the force included the following important items: 769 M-1 Tanks; 598 Bradley Fighting Vehicles; 120 Blackhawk Helicopters; 209 Patriot Missiles; 72 Multiple Launch Rocket Systems; 11 Apache Attack Helicopters; 187 new F-15, F-16 and A-10 Fighters; 46 ships (including 16 warships) and 282 aircraft for the Navy; and Plus thousands of trucks, small arms, and communications items.

We have added not just quantity to our force but, more importantly, greatly increased capability. A few examples:

M-1 Abrams Tank—Average tank gunnery qualification scores 46 percent higher than those of M-60A3 crews. Last year, a U.S. tank company in M-1's scored the highest in the prestigious Canadian Army Trophy competition against the best tank crews and tanks in the Free World.

M-2 Bradley Fighting Vehicle—High-speed battlefield companion to the M-1. More armor protection for the crew; TOW missile and cannon firepower; and greatly increased mobility in comparison to the M-113 Armored Personnel Carrier (APC).

Helicopters—Blackhawk and Apache—Two of the best in the world. Improved lift, range, and sustainability. Apache—vastly improved firepower and protection, and can navigate and attack at night.

F-16 Fighter—The best single-engine fighter in the world. Maneuverable, agile, maintainable (needs only 1/2 maintenance-man hours of the fighter it replaced). Phenomenal bombing accuracies; does as well with conventional bombs as F-4 did with guided bombs.

M-16A2 Rifle—Lightweight, dependable, versatile. Improved accuracy, improved sustained firing capability for the infantryman.

AEGIS on the *Ticonderoga* Class cruiser—Provides up to nine-fold increase in air defense firepower for the protection of the Fleet.

SL-7 Roll-on/Roll-off (RO/RO) Fast Sealift—USNS *Algol* during September 1984. Reforger exercise moved 271 tracked vehicles, 652, wheels, 230 military containers—loaded in only 36 hours, and capable of traveling from Beaumont, TX, to Antwerp, Belgium, in six days instead of 13.

Our forces are well trained and they know how to fight together in ways which capitalize on the advantages the new equipment can offer. We are emphasizing joint and combined exercises. The training is realistic and innovative. The forces are trained and measured against high standards.

Support and sustainability programs are on-hand as new equipment is fielded to ensure that our forces can prevail in sustained combat. In the past three years, the funding for ammunition and spare parts has grown by over 25 percent; spare parts funding has doubled; and in Europe alone, Army ammunition on the ground is up about 16 percent.

All these factors—good people, good equipment, good training and support—add to our strength. The Joint Chiefs of Staff believe that this improved military posture serves as an incentive for Soviet restraint and will provide a climate for sensible negotiations. A strong national defense helps ensure the peace and safeguard our freedom.

Your support is important for the continued security of the Nation and that of our allies. Regrettably, our security and that of the West are not assured. Even under the best of circumstances, the second half of the decade of the 1980's will continue as a period of challenges to our security and as a period of widespread instability. The Soviet Union has been unrelenting in its buildup of military power and in its willingness to use or to threaten to use that power either directly or through the use of its surrogates.

As the Congress considers the defense budget, I urge the members to remember the need for day-to-day readiness. Crises too often give little warning of their approach. The lessons learned since World War II show us that no matter how good the preparations, orderly mobilization is very difficult and very costly once growing tensions indicate immediate danger. Under modern conditions, hasty improvisation of battle-ready forces is not practical even if the national treasure is spent without restraint. An Army, Navy, Air Force and Marine Corps—in-being and maintained in readiness—are the best military guarantors of our security; and they add weight to our diplomacy and support the other elements of our national power.

Every indication the Joint Chiefs of Staff see tells us the Soviets will most likely continue on the path they have been on, fielding stronger nuclear and conventional forces on the land, on and under the sea, in the air, and in space. The United States has no plans to match the Soviet buildup weapon for weapon. Certainly, the Joint Chiefs do not believe this should be done or need be done. However, this Nation and its allies simply must do what's needed to counter the Soviets with a military posture which makes clear that the Soviets cannot achieve their aims by starting a war or threatening war.

The Joint Chiefs believe that our strategy provides this Nation with a sensible approach to preserve the peace and to provide for our national security. It is not a new strategy. It is the strategy of deterrence which we have pursued for nearly forty years. The success of that strategy rests on ready, modern active and reserve component forces and on the maintenance of strong alliances.

THREAT

While being pleased with the improvements in our own forces, we must remember that the Soviets have not been standing still. The momentum of the Soviet military buildup, unequalled by any peacetime nation in history, will carry Soviet force expansion and modernization programs well into the 1990's. With this pace of modernization over the last ten years, the Soviets have produced about three times as many aircraft and about four times as many tanks and other tracked vehicles as the United States. They have deployed a large and powerful navy. The Soviets have the world's only operational antisatellite weapon.

Soviet forces have always enjoyed significant quantitative advantages. To counter this, the United States has traditionally relied on the qualitative advantages afforded by its technology.

The Soviets, however, are beginning to field new equipment, much of it comparable to that produced in the West, and our qualitative edge is slipping. The Soviets have achieved this through a willingness to devote large resources to research and development, through adaptation and outright piracy of Western technology, and through their willingness to accept inefficiency in order to field new equipment rapidly. They devote twice the resources to research and development as the United States and they produce five times as many scientists and engineers—over 400,000 annually. In the past ten years, the Soviets have produced some 40 major aircraft developments, 60 major shipbuilding developments, 50 ballistic missile and space system developments, and 45 in ground forces. They develop new jet engines and several new rockets every year aned they are presently testing two new attack helicopters.

With the momentum of investments in their military forces over the past decade and with sustained levels of effort in research and development, net Soviet combat power in every theater has increased. In the ground forces in the European Theater, for example, the Soviet Union, along with the other countries in the Warsaw Pact has continued to increase its strength in armor, anti-armor and heavy fire support. The Soviet air forces are now flying third generation attack and fighter aircraft throughout the Warsaw Pact. They have deployed the MIG-29 Fulcrum with look-down/shoot-down weapons systems and are expected to deploy the SU-27 Flanker with similar capabilities. The Soviet Navy has by far the world's largest submarine fleet with 370 ships. There are 320 Backfires, over 100 of which are dedicated to naval aviation and global anti-ship missions. Their surface combatants are among the most modern in the world, and they are now building a nuclear-powered aircraft carrier we believe will be large enough to operate high-performance jet aircraft.

Most ominously, the Soviets continue to modernize their strategic nuclear forces. In 1982, the Soviets deployed more, highly accurate intercontinental ballistic missile (ICBM) warheads than we intend to deploy in all of our Peackeeper program. In 1983, they deployed another 200 ICBM warheads and in 1984 they were nearing completion of the latest phase of the modernization of their current silo-based strategic ICBMs. The Soviets' SS-18 and SS-19 missiles, which would total over 5,000 warheads, are in the world's hardest silos, with a redundant, survivable, command and control network. Moscow is protected by the world's only operational ballistic missile defense system. We expect deployment of newer missiles, the SS-X-24 and SS-X-25. We have yet to deploy a single Peacekeeper missile.

Soviet power is a reality that cannot be assumed away. With a population exceeding ours by only 17 percent, they have active armed forces two and a half times larger and ready reserves exceeding ours by about a factor of ten. We must continue to face up to the realities of Soviet military power this year and in the coming years with a sustained program that demonstrates the steadiness of our resolve to defend our interests.

WHAT THIS BUDGET PROVIDES

The Joint Chiefs believe that the budget for fiscal year 1986 supports the Nation's strategy. We participated in the formulation of this budget, and we are satisfied that the proper balance has been struck at the resource levels which have been set. This budget provides resources to continue the improvements in our Armed Forces, and it will help assure the effectiveness of our deterrent posture in the years ahead. The budget will provide the readiness today's forces need to deter war. The budget continues the moderization of the equipment for our forces. It provides for a modest growth in the size of the forces. The budget provides steady improvements in sustainability. Today's readiness needs are balanced with the need for modern forces in the future. There is sensible balance in the resources provided for nuclear and conventional forces. The budget provides substantial growth in research and development activities to help maintain a qualitative advantage for U.S. forces in the years ahead.

STRATEGIC NUCLEAR FORCES

Our triad of strategic nuclear forces is the umbrella under which all our deterrent forces operate. The triad is designed as a deterrent, not for a first strike. About 80 percent of our strategic weapons are in the bomber and submarine forces and only 20 percent in ICBMs. We maintain the three elements of our triad because we believe each leg of the triad provides special strengths which reinforce the deterrent value of the other legs and which help guard against tactical and technical surprise. The triad has been the basis of our deterrent posture for over two decades.

The United States delayed its strategic nuclear modernization, and we have had to modernize all three legs of the triad at the same time. We are making steady progress with the bomber and submarine force modernization. The Trident submarine program will modernize our aging ballistic missile submarine fleet and the D-5 missile will add new capabilities to the force at the end of this decade. The B-1B program is on schedule; it will be in the operational force next year. It will provide a modern, responsive bomber capable of penetrating Soviet defenses.

The modernization of the intercontinental ballistic missile force has had a series of delays well known to this committee. The delays have not been technological or system delays; the missile is performing superbly. The Joint Chiefs of Staff urge the immediate deployment of the Peacekeeper. Its deployment will strengthen the triad, help ensure deterrence, and strengthen the position of our nuclear arms negotiators. The Peacekeeper is tested and proven, and it is ready for deployment. The Joint Chiefs of Staff fully agree with the conclusions of the bipartisan President's Commission on Strategic Forces that we must proceed now with the deployment of the Peacekeeper in order to maintain the effectiveness of the triad and our deterrent strategy into the next century.

Research and development on the small ICBM is proceeding. It will add the new dimension of mobility to the ICBM forces in the mid-1990's.

STRATEGIC DEFENSE INITIATIVE

The Joint Chiefs support the President's Strategic Defense Initiative (SDI) to have this Nation employ its technological talent to determine whether an alternative to sole reliance on offensive retaliation is feasible. Within the bounds of the ABM Treaty, the United States is exploring means which provide the hope that we can end the dominance of offensive ballistic missile weaponry.

CHEMICAL

The Soviets have extensive offensive and defensive chemical warfare capabilities. Our lack of a modern, chemical retaliatory capability detracts from our overall deterrent posture. Should deterrence fail, our forces would be fighting at great disadvantage in spite of the strides we have made in improving defenses against chemical weapons. Unless we modernize our chemical munitions and continue to provide for a sensible research and development program to prevent technical surprise, we provide little incentive to the Soviets for negotiating a vertifiable arms control agreement prohibiting chemical weapons. This budget provides for long leadtime items and facilities in order to begin production of binary chemical weapons, weapons which are safer to store and to employ and which help reduce the likelihood of the use of chemical weapons in the first place.

NEGOTIATIONS

The Joint Chiefs fully support efforts to obtain genuine, equitable and verifiable reductions in armaments. Arms control and other related negotiations are being pursued with the idea that equitable and verifiable agreements can contribute to security and stability. Negotiations are not a substitute for force modernization;

rather, negotiations and our modernization program are mutually reinforcing. We must modernize our own systems even while we seek genuine reductions in force levels through negotiations.

PEOPLE

No matter how good the strategy or excellent the equipment, good soldiers, sailors, airmen and marines remain the heart of our defense forces. This Nation has very good people in its Armed Forces today because of the Nation's renewed pride and faith in those people and the willingness to pay the price for adequate security. The men and women in uniform need to know we will give them the best possible equipment, training and support for their difficult tasks; and they need to know this Nation will provide reasonable pay and compensation for them and adequate support for their families. As we continue into a period of economic recovery and as we face a declining manpower pool, we must guard against the erosion of pay, retirement, and other benefits. We surely do not want to return the forces to the unstable personnel picture of the mid-1970's. The budget provides the right sort of support.

CONCLUSION

In conclusion, I want to repeat what I said before this committee a year ago: that this Nation and its allies must remain strong and steady. Last year I reported to you that we were making progress in reversing the decline of the 1970's in our general purpose forces and that we were in the early stages of modernizing our strategic nuclear deterrent forces. That progress continues. It is important that we sustain that progress in order to maintain the effectiveness of our deterrent strategy.

When the Joint Chiefs look at the Soviets' forces, we see forces that are very large and capable of offensive operations on a global scale. We see their willingness to use their forces and those of their surrogates in Asia, Europe, Africa and in this hemisphere to achieve their aims. Our forces are designed for deterrence. That has been our strategy since World War II, and it's been a sensible strategy.

The Joint Chiefs have examined the strategy and the threat, and we believe that this budget will continue to improve our forces by providing good people, good equipment, good training, and good support. As I said at the beginning, we need not match the Soviets weapon for weapon or man for man; but, this Nation absolutely must continue to deal with the unrelenting growth of Soviet power and with the realities of an increasingly interdependent and dangerous world. I urge your support for the President's defense budget.

Chairman GOLDWATER. Thank you very much, General Vessey and Secretary Weinberger.

NATO/THREE PERCENT COMMITMENT

I have just one quesiton. This relates to NATO and our 3 percent commitment.

Last year Senator Nunn and I proposed an amendment which provided for withdrawal of United States troops from Europe if our NATO allies failed to meet the 3 percent commitment.

In 1984 and in 1985 a majority of our NATO allies did meet or exceed that 3 percent commitment.

Now my question, Mr. Secretary, in your view, what will be the reaction of our NATO allies if the United States Defense budget for fiscal year 1986 is less than 3 percent real growth?

Secretary WEINBERGER. I think it is very predictable, Mr. Chairman. We have been talking to the NATO allies along the lines you indicated. They did come up this year to an average of about 3.1 percent increase in their defense expenditures.

They also added, after a tremendous struggle, I might say, or agreed to spend about $8 billion over the next 5 years on infrastructure funding, vitally needed for the reinforcement of Europe and for carrying out their own defense.

If, after all that urging and pointing to ourselves as an example of how it was possible to make the kind of investment we need, we went under that, I think they would very quickly follow suit.

I think that we have to recongize how vital the NATO alliance is to the defense of the United States. We are not there just for altruistic purposes. We are there because that is the best way to help defend the United States against a situation with which we couldn't live and that would be if Europe were overrun.

So, we have to do a great deal to urge those nations, many of which have economic and other problems, to make a proper contribution. We are doing that, we are succeeding now.

I fear that if we had the kind of results which many of them have had over the past few years which we have been so critical of, and correctly critical, then we would lose all of the good we have accomplished and would endanger ourselves in the process.

If their defensive capability goes down, ours will, too.

Chairman GOLDWATER. Thank you, Mr. Secretary.

We will now begin the questioning. The first round will be 10 minutes. We will start with Senator Nunn.

Senator NUNN. Thank you, Mr. Chairman, .

Thank you very much, Mr. Secretary.

On that question Senator Goldwater just asked, do you know whether the NATO 3 percent measure gain is outlays or budget authority?

Secretary WEINBERGER. My understanding is that it is a 3 percent real growth outlay term.

Senator NUNN. It is an outlay measure?

Secretary WEINBERGER. Yes, sir I believe it is. We can find out definitely.

I have, in further answer to that, made the point that you were making in the opening statement, that the output is what I want to look at primarily. The 3 percent has been used for a long time and it is a rough index, but it is not necessarily a measure of the degree of military strength and growth that is needed to strengthen NATO, to respond to the threat we face.

It is at least a minimum. So, we have continued to regard it as an important yardstick and to fall under that would be unfortuate for them and for us.

Senator NUNN. I agree with that. I think the output of NATO is more important than the 3 percent measure. I think both are indicators of what is happening.

NATO EXPENDITURES

Let me ask this question about NATO expenditures. We saw a chart that was pretty clear, NATO as an alliance is still being outproduced each and every year by the Warsaw Pact if you include the Soviet Union.

Secretary WEINBERGER. In those categories. That chart covered a 10-year period, 1975 to 1984.

Senator NUNN. What disturbs me about this is that my figures, based on the Defense Department submission, indicates that during this 10-year period in each and every year—I think there is one exception, but the cumulative NATO expenditures over that 10-year period are substantially more than the cumulative expenditures of the Soviet Union and Warsaw Pact.

It seems to me the taxpayers of all our countries, Europe and the United States, have every right to ask the question why, if we are out-spending the Warsaw Pact and Soviet Union as a collective alliance each year, and I think the total is $123 billion more, that is about 6 percent more in the 10 years, why is it we are being out-produced every year?

Second, why is it our Supreme Allied Commander in Europe basically says, and he is probably correct, unfortunately, that we are the ones that will have to escalate and use nuclear weapons at the early stages of the war to avoid being overwhelmed conventionally?

That is the broad pricture we have now. I find it disturbing.

Secretary **WEINBERGER**. It is a disturbing picture. There are two points that should be in the record in response to your point.

In the first place, I don't think anybody really knows how much the Soviets spend. They hide it through several different types of budgets. Their defense budget as such has remained perfectly level since 1973 which is quite a remarkable achievement. We have not been able to do it. It is always 16 billion rubles.

Senator **NUNN**. This is based on intelligence estimates. I assume until we get something better, we have to go by this.

Secretary **WEINBERGER**. We have very rough estimates. I don't think there is a great deal of confidence in estimates of how much the Soviets actually spend

The point is that they can get a great deal more in the way of output because of the nature of their society. They are not in the least worried about paying adequate salaries or the quality of life or anything of that kind.

Senator **NUNN**. I agree with that. Nevertheless, we have all the advantages in the free enterprise system. We out-produce them. Our gross national product is more. Our technology is greater.

All of a sudden in the military field we turn around and say they have a great advantage in military production because they can out-spend us.

In the defense production and world market we out-produce them in every measure. It seems to me if the Soviet Union-Warsaw Pact have such inherent advantages in military production over NATO and our allies, we have to start asking ourselves the question: Why is it they have such great advantages and what are we going to do about it?

Secretary **WEINBERGER**. It is very simple. Unfortunately, the society that they have enables them to decide, four, five or six men in the Kremlin, they want to have military superiority to carry out their basic tenets which are the establishment of Communism throughout the world.

They can build the kind of military that they think is necessary to do that. Most of this is offensive type equipment.

Senator **NUNN**. You think a centralized system run by a dictatorship is more efficient in military production?

Secretary **WEINBERGER**. No, sir. I am saying the priorities of the nation over there are set in such a way that none of us in a free society would tolerate it and none of us would want it.

If you have 17 or 18 percent of your gross national product devoted to the military, if you pay a miserable wage or use slave labor, if you steal technology by a concerted campaign around the world, which they have been very successful in doing, then you have a situation when you can produce this kind of picture.

It is true, the military side is what they concentrate on. I am sure you have seen some of the housing, some of the civilian types of activity in the Soviet Union. I am sure you would not want to spend more than a few hours there unless you had to because that is the kind of society they have.

But they are quite capable by concentrating all of their efforts on the military, of out-producing countries that don't want to put as much of their resources, quite understandably, in the military activity. That is how they do it. It is the simplest thing in the world.

It is one of the most dangerous parts of this whole business.

General VESSEY. One clear point that is often missed is the ability of the Soviet Union to control their Warsaw Pact members in terms of what is done—for example, standardize tanks or standardize the aircraft. They have one set, by and large. There are only a few individualized items built in some of the Warsaw Pact countries.

Senator NUNN. Then should we not make a major effort with our allies on standardization?

General VESSEY. I could not agree with you more. We will continue to try to do that. Unfortunately and fortunately, our alliance is a nation of free nations.

Senator NUNN. I would like to go into a couple more questions, but we have a time limit.

Secretary WEINBERGER. We do not seek military superiority. We don't try to get one more tank. We try to have enough to deter any attack. That is the defensive posture we are in.

It requires that we be in a high state of readiness with the forces we have.

Senator NUNN. My only point in wrapping up is if that is our goal and I agree that is our goal, we probably ought to start developing some other form of measurement that just the number of tanks and armored vehicles.

We had better come up with some kind of dynamic balance and some kind of measurement that takes into account that defending is sometimes more advantageous than offense.

I have seen these charts ever since I have been here for 12 years and we continue to put more and more emphasis in the defense budget and continue to out-spend the Warsaw Pact, yet our Supreme Commander over there after 4 years of buildup says NATO has to turn to the use of nuclear weapons in the first few days.

You have to ask what is all of this getting us if that is still our condition?

LONG TERM GOALS

Let me go to another question that relates to this.

Mr. Secretary, last year, I believe the year before, you had in your posture statement our long-term goal is to be able to meet the demands of a worldwide war including concurrent reinforcement of

Europe, deployment to Southwest Asia and the Pacific and given Soviet capability for simultaneous attacks in Southwest Asia, the Pacific, our long-range goal is to be able to defend simultaneously.

Is this still our goal and strategy?

Secretary WEINBERGER. Basically our goal and strategy is to be able to respond wherever our freedom or national security interests are threatened.

To try to reach the capability of doing that, we have to look at what the potential threat is, what the capability of the Soviets is. This is a strategy which, as I said at the beginning, is dictated not by us.

We used to be able to do that in the 1950s and say that we are prepared for two and a half wars or one and a half wars, but we can't do that now. We have to be ready to respond.

If we carve out a particular section of the world or some area that affects our interest and say that we don't have any real strategic interest there, or its lies outside our strategic frontier, then as we saw in Korea, attacks could come at that particular point.

If what you are saying is that our strategy is too all-encompassing or too broad, I have to respond it is a strategy which is forced upon us by the fact of the capability of our potential opponent. It is, therefore, essential that we have, plan for, and try to reach that kind of capability.

Again, it is a defensive tactic. It does not mean we are able to go in and mount attacks in all those areas of an offensive nature.

It means a degree of strength and air-sealift and mobility so that we deter attacks. In building that deterrent, we have to know what the Soviets are basicaly capable of.

Chairman GOLDWATER. Senator Warner?

Senator WARNER. Thank you, Mr. Secretary and General Vessey.

I think sometimes we fail to recognize the positions you have taken here this morning as well as in the last several months where you have been on the defensive in extreme controversy, you have a charge under the law to be the principal advisor to the President of the United States on national security, the Congress and the people.

Frankly, I think you have done that and done it well. To the extent the Congress, either individually or collectively, has unloaded upon you as a sort of whipping boy the criticism, I think is reflection of our own inability to make the tough decisions.

I hope we put an end to it as we get on with our Constitutional responsibilities; namely, that the President proposes and we dispose in terms of the dollars, and work toward this budget resolution.

There will be a tug of war here between those who want to freeze defense along with other accounts in the effort to achieve a budget reduction. Indeed, personally I support a budget reduction and your 5.9 percent, that is the President's figure versus the freeze undoubtedly will be compromised.

NATO—THREE PERCENT FLOOR

Drawing on Chairman Goldwater's observation about NATO and the need to maintain as a floor 3 percent, wouldn't you also suggest as an additional reason for that being the absolute bare minimum, although I don't expect you to commit to that this morning, but to the strength of the argument that I and perhaps others will forward for a 3-percent bare minimum, wouldn't you add that the Soviets have returned to the negotiating table because of the solidarity of NATO, particularly in the fact of that 18-month pressure in their own respective legislatures to stop the positioning of the theater missiles?

Secretary WEINBERGER. Yes, I certainly would.

I would like to emphasize, however, that 3 percent would be 2.9 percent below the bare minimum that is required to maintain that condition which is a vastly improved condition.

It is important not just to look at percentage increases, but, as Senator Nunn said, to measure your output. If you do that, you have to measure the output that is lost if you make cuts back to that.

Certainly without the regained military strength of the United States which the Congress has approved and supported in the past 4 years, I don't think there would be any negotiations underway or any negotiations really possible because the Soviets would see, quite correctly, as they have seen before, that they were able to secure their objectives without coming to the table—their objectives being to secure, maintain an increasing degree of military superiority that enables them to carry out their basic goals.

Senator WARNER. One of their principal objectives is to weaken the NATO alliance.

Secretary WEINBERGER. They have been doing that for 40 years.

Senator WARNER. If we were to go below the 3 percent figure, that would be certainly a step forward in that direction?

Secretary WEINBERGER. Yes, sir. Just exactly as they have tried so hard to block deployment of ground-launched cruise missiles and Pershing on which NATO demonstrated the strength of the alliance by going forward with it.

STRATEGIC DEFENSE INITIATIVE

Senator WARNER. Let us turn to the SDI program commonly referred to as Star Wars. According to my calculations, the figures you have presented this morning represent about a 160 percent increase program growth, 1986 over 1985.

My first question, historically in the Department of Defense when we try to build up a program as rapidly as that, we build in waste and inefficiency. The private sector industry is incapable of absorbing such a substantial buildup.

What would be your response with respect to the private sector in their ability to accept these substantial added sums in that area?

Secretary WEINBERGER. One of the reasons we are asking $3.2 billion for the Strategic Defense Initiative research program is that the program request was cut substantially last year. We have a list of projects, contracts and some basic ideas which are necessary to enable us to achieve this very great objective—an objective that I believe offers more hope to the world than anything else we are talking about.

So, I don't have any doubt about the ability of the various people who would be doing some of the contract research work to carry out the tasks that we have earmarked and identified in the budget as the way in which this money would be spent.

It is a big program, but it has an enormously important objective, an objective that if we can obtain it, would reduce very substantially the high cost of the offensive programs which we have had to use and will have to use until we get this Strategic Defense Initiative.

Senator WARNER. That presumes eventually we put it in place and it functions.

Secretary WEINBERGER. If the research proves it is feasible.

Senator WARNER. As we look at means with which to try, that is the Congress, to bring about some reduction in defense spending, does this program lend itself to a stretch-out?

After all, it is before the negotiators in the arms control forum. Quite possibly since this might be a subject for future arms control negotiations, we could look upon it as a means of stretching it out and saving some dollars.

Secretary WEINBERGER. No. I think that would be the very worst signal to send to them.

As you know, the Soviets have expressed repeatedly their strong opposition to the Strategic Defense Initiative program. It is in the same category as, although vastly more important, Pershing II, which is the one thing they insisted must be stopped. Pershing II is the program to which they said, frankly, they would not return to the table if we did not stop deployment.

They are back at the table. The important thing about strategic defense is that they recognize that this is a method by which we could make obsolete, useless, and impotent their nuclear missiles, both intercontinental and intermediate range.

They are bound and determined to try to stop it. I think it would be a great mistake if we reduced the request drastically, or cut it out simply as a way of saving money.

It is the principal Soviet objective to try to block the Strategic Defense Initiative. It is one of the major priorities of the President to try to secure a better way of deterring war and keeping the peace.

MX MISSILE

Senator WARNER. Turning to the other major program, the MX, what about the possibility of stretching that program out and giving you, say, another year of level funding as in 1985 to indicate the fact that the congress is behind the President on the program and the people, speaking through their congressional representatives, are behind it and the Soviets would then see a constancy of viewpoint?

Secretary WEINBERGER. Senator, again looking at it on a year-to-year basis, we have been debating the MX now for 12 years. During that time we have watched the deployment of two new generations of Soviet missiles and they are working on a third. Senator Goldwater identified them and discussed them in his opening statement.

Further delays would simply signal to the Soviets that they still have the hope and the opportunity of blocking the program completely.

It is always easy to say let us stretch it out and let us do it another year; this is a bad year. Those things then just keep sliding to the right. In many cases they actually never get done.

We have 21 missiles built, we have 21 approved, but with a fence around them. We would hope that fence can be taken down so that we can maintain an effective rate of production.

SOVIET TREATY VIOLATIONS

Senator WARNER. Mr. Secretary, my time is nearing the end. My last question.

In view of the expanding pattern of Soviet treaty violations, has the Department of Defense considered any method by which to enforce Soviet compliance in the hopes of future agreement?

Secretary WEINBERGER. There is no way of enforcing compliance when you are dealing with sovereign nations. You can only bring them before the court of public opinion of the world—that is essentially what the congressionally required report on violations turned in by the President was intended to do.

Verification of a far more effective nature than we have is one of the things that is essential. Beyond that there is no way to enforce it.

Chairman GOLDWATER. Senator Stennis?

Senator STENNIS. Mr. Secretary, we are preparing for a real debate this year, more in depth than in several years. Let us get down to something specific. Those who back your position on all this money are going to have to be specific.

In the past 4 years we have spent about 22 percent more purchasing power than heretofore for a like period. Please tell us what we have gotten for that money. That is what the people want to know—what have we gotten for that money.

Why could you not try harder—I am not talking to you as an individual—try harder to make it go further as you spend it?

You and I have talked about this before. You can't be specific in 10 minutes, and that is all right. You can insert your answer later, but please be as specific as you can for now.

COMPARING U.S./SOVIET STRENGTHS

Where are we stronger now compared to the Russians than we were 4 years ago?

[The information follows:]

Prior to answering your question, it is important to note several points. First, there has been considerable momentum in the Soviets' military programs over the past four years. In a sense, we have had to work hard just to stay even, or avoid falling farther behind in some cases. Second, although four years seems like a long time, it really isn't long enough to reverse the adverse trends we confronted in 1981 if one considers the lead times associated with the budgetary process (e.g., 1 to 2 years for most readiness improvements and equipment/aircraft deliveries; typically at least 5 years to build major warships).

For these reasons, dramatic gains on our principal adversary will take considerable time. However, we have made some tangible progress in particular areas. Our performance has been best with respect to readiness, which has been our top priority. Against a Soviet readiness posture that we believe probably has gone up only marginally since 1980, our own readiness has definitely improved. Increases in personnel readiness—unit "fill", quality, and skill levels—have been most noteworthy. These result from a basic commitment on the part of both the Administration and Congress to compensate our military people properly. Training has also been expanded, and availability rates for aircraft and equipment are all higher than they were in 1980, significantly so in some cases.

It is especially difficult to judge trends with respect to sustainability. We have increased our own combat staying power significantly through procurement of modern munitions and spare parts. We know that the Soviets also have given a lot of attention to this area, but we lack the kind of detailed information we need concerning their supply levels to state accurately whether we are gaining on them or not.

Concerning force size and modernization, we just haven't had much time to work against Soviet programs that had considerable momentum, although the foundations for significant improvements have been laid. One part of our strategic forces triad, the bomber "leg", has been significantly strengthened relative to its Soviet counterpart. Our relative SLBM posture has remained about the same, and our ICBM position has declined as the Soviets continued their force improvements while we awaited the initial deployment of Peacekeeper missiles. Turning to conventional forces, our naval capabilities have gone up relative to the Soviets. Our forward-deployed ground and tacair forces have also gained relatively in strength, and can be reinforced more rapidly, but total Soviet ground and tacair forces appear to have outstripped ours in modernization.

We would of course expect to do somewhat better in all of these areas over the remainder of this decade, as the effects of the Reagan defense buildup come more into play. For example, introduction of the Peacekeeper missile and continued deployment of B-1 bombers and Trident submarines, which are now just beginning to enter our forces in numbers, will gradually upgrade our relative strategic posture over the next few years. And the primary combat elements of our naval expansion program—two nuclear carriers, additional numbers of AEGIS-equipped cruisers and Los Angeles-class attack submarines, and increases to our amphibious lift capacity—will be starting to reach the fleet soon.

Secretary WEINBERGER. I think there are two general answers, and then there are some very specific ones.

Generally, we are stronger in our relationship in virtually every category than we were before.

Also, as we see on the chart that was up a moment ago, the Russians show no signs whatever of stopping or slowing. They are also producing at rates that are not questioned, nor are they limited in any way. They are very, very large rates of output that they get.

We believe therefore, that we have to do what we are doing. We do believe that we are doing it at the most efficient rate of production to bring the unit cost down.

Now, the general answer is that we have, I think, a far stronger, far more ready force, with far higher morale and better training and better support. Those are the general answers.

The specifics—General Vessey read a moment ago a list of additional types of weapons that have been acquired. I had in one of those charts, the force modernization improvement which showed the number of M-1 tank battalions and the number of infantry fighting vehicle battalions, the number of missile submarines, frigates and Marine howitzers and the number of tactical combat Air Force units.

They all have increased very, very substantially. Those are the things we are acquiring.

General Vessey, do you want to mention any specific numbers again?

General VESSEY. I think in the interest of time—those charts are in the record, but it is clearly there, Senator. What has been produced is a force that is manned with considerably better people, in non-commissioned officer strength and officer strength.

There is far more modern equipment. If I were the Soviet Chief of General Staff, I would be far less inclined to agree to an attack on NATO and the United States today than I would have been 4, 5 or 6 years ago.

Senator **Stennis**. You base that on that weapons now?

General **Vessey**. On the entire range, Senator Stennis. The conventional weapons and the modest increases that we have made in our nuclear forces.

Senator **Stennis**. I think any real personal work you could put on this question and related matters would be highly valuable to have in the record for the use of those in the debate who are supporting your position. That relates to both of you. You are highly competent in your field. We are going to look to you far more than heretofore, I believe.

One last question, Mr. Secretary. Could you explain to us what the 10 percent increase in the defense budget for fiscal year 1986 is going for?

Secretary **Weinberger**. We have an increase of $30 billion requested, and it is spread over possibly five major items.

Military and personnel would go up $4.5 billion.

Operation and maintenance would go up $4.2.

Procurement would go up 10.

Research development, testing and evaluation, up 7.8 percent.

Military construction, up 1.6 and family housing, $400 million.

A generalized list of other items of $500 million for a total of $29 billion.

That is budget authority increase that is requested from 1986 over 1985. The military pay is part of it, and civilian pay is also part of it. About $10 billion of that $20 billion is inflation on the 4 percent estimate that we are using and programmatic increases, again stating it another way, about 17.6.

We can get you the precise number of items in each situation. We have, for example, 840 tanks and we have 917 aircraft, 48 B-1 bombers, 180 F-16s. We have the 48 MX Peacekeeper missiles, 85 Patriots, 23 new ships, five conversions.

I could run through the whole list. It is very specific.

Senator **Stennis**. I think the major line items there that have been increased ought to be spelled out by you gentlemen with an explanation given.

I tell you this is no child's play, this will come up in debate and the judgment is going to be quite serious and quite difficult.

With all respect, there are not many members who know how to compare weapons or the intricacies that go with the weapon development and cost. They want to know something definite from you gentlemen who do understand it.

I suppose my 10 minutes are about up. Let me say you take extra time on this question. I think it is a key thing in this debate.

Secretary **Weinberger**. Thank you, sir.

Chairman **Goldwater**. Senator Cohen?

Senator **Cohen**. Thank you, Mr. Chairman.

I was interested to hear your remark about the $1,100 plastic cap, $400 hammer and $7,000 coffee pot. I am told there will be a new story dealing with a $600 toilet seat for a P-3 aircraft which I think gives new meaning to the word "throne." [Laughter.]

We will discuss those perhaps during the second round of questioning.

SOVIET LOOK DOWN/SHOOT DOWN CAPABILITY

Mr. Secretary, during your appearance before the Foreign Relations Committee, you indicated that the Soviets have developed a look down/shoot down capability and have, in fact, shot down a cruise missile that they had fired, apparently over Finland.

Secretary WEINBERGER. That was in error, Senator. That was not a correct statement. We have put out the correct statement which is that they are working on that kind of radar. They may have some of that capability. They did not exercise it with respect to that particular incident.

That was my error. I mixed up two reports. I regret the error. But they are working on the capability and we don't know the full extent of how far they have developed it, they did not exercise it with respect to that particular target.

Senator COHEN. As a general proposition, I assume it is cheaper to build a cruise missile than to build a MIG-25. Do you agree with that?

Secretary WEINBERGER. Yes, I think that is probably correct. Again, you have to recognize that the Soviets have the ability to produce these things without the normal measures that we use because they don't have to pay any kind of wages.

Senator COHEN. The point I want to get to, assuming you were correct in your statement that they have the capability of shooting down or trying to develop the capability of shooting down cruise missiles, assuming they have that capability, would you as Secretary of Defense recommend the elimination or the slow down of our cruise missile development?

Secretary WEINBERGER. No, I certainly would not because their ability to shoot down cruise missiles is a current static factor they either have, or will acquire very shortly. That should not lead us to cancel a program that will have within it and can have within it various means of overcoming their present ability to destroy these missile.

It is important that we acquire this kind of capability.

CRUISE MISSILE DEPLOYMENT

Senator COHEN. In other words, as Secretary of Defense, even if they have that capability, you would not recommend that we terminate the cruise missile deployment?

I assume, to follow that logically, that you would probably recommend that we continue to proliferate our air-, sea- and ground-launched cruise missile technology to overwhelm whatever defenses they are developing.

Secretary WEINBERGER. I would prefer to do it by a smaller number of better cruise missiles. I think that there are various ways of trying to do it. None of these things, unfortunately, Senator, lends itself to a static snapshot at any given time.

You have to deal with the situation as it exists. Right now they don't have the defensive capabilities that they are working on, but I mention this because there are so many people who feel we should not even have any thought of any defense, that we should only concentrate on offense and we should not work on defense.

I think it is important to know that the Soviets are working on these defenses.

Senator COHEN. I am trying to inquire whether there is any logical connection between that view of our cruise missile technology in view of the fact they are trying to develop a defense against it and the question about the interrelationship between SDI and arms negotiations.

In other words, a study panel that had conducted an evaluation of SDI a year or so ago, the Hoffman Panel, concluded that rather than reducing their offensive capability, the Soviet Union would more likely simply increase their offensive potential.

It seems to me that same sort of rationale is at place herein looking at our technology. I agree with you that we should not recommend cancellation.

I also think the same rationale applies to the Soviet Union in looking at our defensive capability.

Secretary WEINBERGER. Your question assumes the approach some people take. It sort of assumes that the Soviets are not doing anything on defense now, but will start as we proceed with our Strategic Defense Initiative.

One of the rationales for the Strategic Defense Initiative is the fact the Soviets have devoted a great deal of time and effort to developing that kind of defense. If they should get it first, it would leave us in a far more dangerous position.

We work on it also because we think it is very important and a far better way to preserve the peace. There is no question that they will try to counter it. What we need to do is to work on a system which we are working on that we think would overcome most of the counters that are being talked about.

Senator COHEN. I don't disagree with you that they are in fact working on similar types of defensive systems.

I am trying to find out if there is any connection between trying to reduce five systems without trying to pursue arms reductions and defensive systems.

Secretary WEINBERGER. We want to have major reductions in offensive systems. That is the task of the negotiators going to Geneva. We want that more than anything.

I would be delighted to get a verifiable agreement that brought about major reductions in these weapons, these offensive systems. We certainly work on that and want to get that.

Meanwhile, we also should work on the Strategic Defense Initiatives for a number of reasons, one of which is that the Soviets are working very hard to get it, too.

PURSUING DEFENSIVE NEGOTIATIONS

Senator COHEN. Is there any need to pursue reductions in the defensive area as well?

Secretary WEINBERGER. We have been very successful with that. We have pursued reductions in defensive efforts down to the point where we do not have, as a result of the ABM Treaty and general philosophy of that kind, any kind of adequate defenses for the continental United States.

Senator COHEN. We pursued that on a unilateral basis. The question is: Is there any value, in your view, in pursuing defensive negotiations, as well as offensive?

Secretary WEINBERGER. Yes, we certainly should try to do that and we are doing that.

We also at the same time must, I think, proceed with research to answer the question as to whether the kind of thoroughly reliable strategic defense that the President wants is technically feasible. I very much hope it is.

MASTER RESTATIONING PLAN

Senator COHEN. What progress is being made by our NATO allies on the Master Restationing Plan?

General VESSEY. Not much at this particular time.

Senator COHEN. When you talk about greater cooperation and cohesion within the NATO alliance and you take into account what Senator Nunn has been talking about in terms of sheer military capability, the fact of the matter is that our troops currently stationed there and our allies troops are really not in as viable a position as you would like, are they?

General VESSEY. That is right. I would say that, concerning our own forces, they are probably better off than many of the other NATO allies. The northern region, as you know, has more——

MODERNIZED CHEMICAL CAPABILITY

Senator COHEN. What progress have you made in persuading them to accept modernized chemical capability? What progress is being made in discussions with the NATO alliance dealing with deployment on NATO territory?

General VESSEY. The issue of deploying it on NATO territory has not been discussed. I would say to you that my NATO Military Committee colleagues all urge me to urge you to build an offensive retaliatory capability, particularly the binary round.

Senator COHEN. If we build it, they will deploy it; is that it?

General VESSEY. That is a question that has to be taken up with the Alliance. I am not the one to answer that question.

If we don't build it, it certainly will never be deployed.

HIGH STATE OF READINESS

Senator COHEN. You indicated we have a very high state of readiness. We are operating almost on a wartime tempo with respect to our Navy.

What progress is being made with our allies in terms of their sharing that burden of paying for that wartime tempo cost?

General VESSEY. We have not had any discussions with the allies on helping to pay the wartime tempo cost, but we have had all sorts of discussions with allies in helping with the burdens, for example, discussions with Japan on the idea of assuming defense of the sea lanes out to a thousand miles.

Senator COHEN. What progress is being made there?

General VESSEY. Progress is being made. I don't have the details.

Senator COHEN. Could you supply that for the record?

General VESSEY. I can supply that for the record.

The other free nations have in recent months continued to deploy more forces to such places as the Arabian Sea and Indian Ocean.

[The information follows:]

ALLIED SUPPORT

The United States and Japan agreed to accomplish a bilateral Sea Line of Communication [SLOC] study. [Deleted] and subsurface [deleted].

Senator COHEN. Who is helping to deploy in the Arabian Sea?

General VESSEY. France and the United Kingdom both deploy forces there.

Senator COHEN. Would you indicate for the record exactly how many ships?

General VESSEY. Right. I think that has to be classified, but I can certainly provide that.

[The information follows:]

SHIPS IN THE ARABIAN SEA

[Deleted.]

COMPETITION AT R&D LEVEL

Senator COHEN. One of the major criticisms in terms of procurement is that we have fairly good competition at the rsearch and development level, but once we get beyond that in production, only about 6 percent of our contracts are by way of competition.

Would you agree with the recommendation that has been made that we have competition all the way through from R&D to the procurement and production phases with perhaps some exceptions for major pieces of equipment which cannot be competed?

Secretary WEINBERGER. We are strongly for competition. The figure you have given is far too low. We have had a number of substantial successes by going the competitive route. We have even encouraged, to the extent, as you know, of seeking funds for other suppliers to develop the capability.

One of the biggest contracts that we let recently that has always been on a sole-source basis before, or primarily on that, was the aircraft fighter engine, the new fighter engine. That was competed and brought about a much lower price.

Competition has entered in some of the other tactical fighter aircraft, and that has again brought about a much lower price. We encourage stronger competition.

We have discovered no ways of ordering several people to bid on a project. But to the extent of helping them get started in particular phases of the business, we have encouraged and do encourage competition.

We have also appointed competition advocates in each of the services to go out and seek on a very active basis other suppliers so that we will have more than one.

We have also asked to have the design of many of the basis units such that the parts for them, under the subcontracts, are particularly subject to and capable of being completed, so that we don't have the retention of the proprietary ownership of many of the things that went before and led to the others not bidding, or to just one supplier being used.

Frequently these are follow-on contracts, too. Additional numbers of units are supplied, and under those circumstances you don't get other bids.

Any time we can get competition, we welcome it. It is the best way of hoping to reduce the price and we strongly encourage it.

Senator **COHEN**. Thank you very much.

Chairman **GOLDWATER**. Senator Exon?

I want to welcome both the Secretary and Chief of Staff here today.

I know this question is conjecture, Mr. Secretary, but it is conjecture I think a lot of people are asking about today.

VERIFIABLE ARMS REDUCTION AGREEMENT

Should we be successful sometime this year in securing the administration's goal of a verifiable arms reduction agreement with the Soviet Union, how much of a reduction as a result of that could we anticipate in outlays for 1985 and 1986 and how much of a reduction in budget authority could we possibly anticipate for 1986?

Secretary **WEINBERGER**. I don't know any way to quantify that without seeing a very specific agreement before me. I would very much hope to get an agreement with substantial reductions.

I think in view of the fact that SALT I took 3 years and SALT II took 7 years, neither of them brought about any reductions, but permitted increases, that it would not be very realistic to assume that the negotiations starting next month would result in an agreement that will permit outlay reductions or budget reductions this year.

I would hope that we could get an agreement that would result in that sometime soon. I don't see any reductions that will be possible this year as a result of negotiations starting in March of this year.

If there were, we would be the first to report them to you. I just don't see that that is a possibility, given the history of arms reduction negotiations.

Senator **EXON**. What about 1986?

Secretary **WEINBERGER**. Well, that is the year before you. We are budgeting for that year. What we are budgeting for, as we said a few moments ago, 38 percent is a carryover from previous years where we are in the middle of the acquisitions that are necessary.

I think we are always going to need a strong deterrent to any kind of breakout or any kind of violation of the treaty. Just last week the President submitted a list, a long list of very serious violations.

So, we obviously are going to have to look at verifiability provisions pretty carefully. If we have anything at all that would result in reduction, we would welcome it.

I don't know any way to guess at what that would amount to. If you could get down to a situation in which the Soviets agree to take all the SS-20s, 4s and 5s in Europe, the zero option that the President wanted, which we urged as our first proposal, then obviously we would be able to save the remaining cost of deploying the ground-launched cruise missiles and the Pershing.

Again, when and if that kind of agreement could be reached, I don't know. The Soviets have already indignantly rejected it out of hand. I don't know if they are willing to change on that. However, they have changed on something, they have come back to the table.

Maybe they will change on that. I would hope so. That would be a very specific instance.

Senator **Exon**. Let me phrase it another way. Maybe you can give us some broad general guidelines.

DEFENSE BUDGET INCREASE

As I understand the figures of the administration, your recommendation is proposing about a trillion-dollar increase in the defense budget for the remainder of the President's 4 years.

Assuming that we could get an agreement this year, 1985, the budget we are talking about, of course, would not take over until October of this year and runs until October of next year. I can see why it might be difficult for you to answer that.

Let me phrase the question another way If the Reagan administration is successful in its goals of reducing the armament race on the basis that they have said publicly, how much of a reduction would you anticipate we might be able to make in that one-trillion-dollar figure, 10 percent or 50 percent?

Secretary **Weinberger**. Again, sir, it is very hard to quantify. When you look at the structure of the budget, 43 percent this year is for personnel cost. What we are talking about is a reduction of specific kinds of strategic arms.

I would not anticipate having major reductions in personnel. It would be possible from the hypothesis you have used if we could make major reductions in the strategic forces, the strategic forces are about 13 percent of the budget this year, if we could make major reductions in those over the next 4 years, we would certainly welcome it.

I don't know what the percentages would be, but anything that we could safely recommend and fulfill the responsibilities that I have at the moment, we would be delighted to do it.

If we could do it even in the middle of deployment of a particular system, we would not hesitate, and would tell you that this is now no longer necessary. The exact amount would depend on the agreement, when it took effect, the degree of verifiability and factors of that kind.

That is the kind of agreement we want. That is what we are looking for, not only to reduce money, but also to reduce risk.

Senator **Exon**. Mr. Secretary, your chart indicates there is about a 6 percent real growth in the budget for next year.

Secretary WEINBERGER. Yes, sir.

Senator EXON. What is the percentage in total dollars?

Secretary WEINBERGER. I am told about 10 percent.

Senator EXON. So, 6 percent real and 10 percent in dollars. In other words, that is with 4 percent inflation factor?

Secretary WEINBERGER. Yes, sir.

Senator EXON. Let me ask this question. When we talk about the defense budget, we talk in real terms. As you and I know in our private conversation that is the way to look at it, in real terms.

Is it not true, though, that in the rest of the budget, generally speaking, we talk about freezes or decreases without any consideration whatsoever of the inflationary factor?

Secretary WEINBERGER. No, sir, I don't think that is true. For example, health and human services will go up 8½ percent in nominal terms, and a number of other budgets will go up by smaller amounts.

I think the inflation factor is generally built into the budget estimate. Our 4 percent factor is not a defense number, it is a Government-wide number.

BUDGET FREEZE IMPOSSIBLE

Senator EXON. Mr. Secretary, I have asked you this question before on many occasions and I suspect I will be just as unsuccessful in getting an answer from you as I have before. I suspect that in the end, the real growth in the defense budget probably will be in the area of 3 percent notwithstanding the fact that there are many today who want an absolute freeze, and some who want an actual reduction

The opinion of this Senator, as you know, is that with obligations that we have made over the years and with the parts of the budget that you adequately explained in your opening presentation with regard to commitments that were made and that we can't get out of, I don't believe that an absolute freeze in the defense budget is practical and I think it would do great harm to our national security, to say nothing of what it would do to the pressure that we are continuing to bring on our allies along the lines Senator Goldwater's earlier question.

Let me ask you this question. I am going to predict that we are going to be somewhere in the area of a 3 or 4 percent increase in the defense budget.

Assuming for a moment that that comes to pass, then can you tell us where and what changes you would make to live within those guidelines?

Secretary WEINBERGER. Sir, not with any degree of accuracy. Certainly I would start with the idea that I would hope that your hypothesis did not come true.

Senator EXON. My hypothesis has been almost exactly correct for the last several years, Mr. Secretary. I could be wrong.

Could you answer the question?

Secretary WEINBERGER. What we have done to get to the point where we are now which is to take out $36 billion of proposed spending and to get $2 billion below what the Congress told us was the proper amount 4 months ago is to take out a large number of systems and to reduce substantially the ability to get the most efficient cost rate of production on a number of others.

For example, we have had to take out of the budget 36 F-16 aircraft, 22 kits for the re-engining of the KC-135s, 12 of the F-16s, 18 of the F-18s, 6 of the F-14s, 3,000 of the Stinger missiles, and 4,500 of the Maverick missiles.

I have a list here that goes on for several pages. But that is the kind of thing that we have had to do. There are a number of ways you can do it. Very quick outlay savings, would result from reducing the number of personnel.

You could take two of our divisions off and put everybody out of the Army immediately. You would have a small unemployment problem, but you could do that. This is a way to get quick reductions.

We strongly recommend against that kind of thing. We strongly recommend against reduction beyond the point we have made. We are already $2 billion under the amount the Congress told us was proper.

You also have to bear in mind the point that I have mentioned two or three times and that is that cutting the defense budget a dollar does not bring you a dollar reduction in the deficit because you do have unemployment associated with it.

All of our studies show that and these are based on economic models on a consensus, not just one, that for every billion dollars of defense procurement that is cut, you lose about 35,000 jobs. True, many of these people will be employed elsewhere.

Senator **Exon**. You are not saying we can spend our way into prosperity by raising the defense budget?

Secretary **Weinberger**. The last paragraph says you should not do this because it has a very good effect on employment. The fact is when you are buying something you need which is additional security, we should not overlook the fact that it also happens to have a good effect on employment.

I am not saying you should use it to stimulate the economy. You may not have remembered, but I am not a Keynesian. It is a wrong thing to do.

Senator **Exon**. You are one of the few people in the administration that is not a Keynesian.

Secretary **Weinberger**. We do need certain things and this is one of the things we need, in our opinion. It does not have the bad effect that a lot of people attribute to it.

Senator **Exon**. Mr. Chairman, my time is up. I do hope that when the reduction is made, as it will be, despite your excellent presentation and good salesmanship, I hope that basic readiness will be spared. I think we can't afford that at all.

Thank you, Mr. Chairman.

Chairman **Goldwater**. Senator Quayle?

Senator **Quayle**. Thank you, Mr. Chairman.

PROCUREMENT

Mr. Secretary, as we look to gaining more efficiency in our defense business, one of the areas you have turned to and the Congress has turned to also is the area of procurement. We need to talk about enhancing competition, and trying to get more efficiency and responsiveness in the system.

One controversial issue is whether we are going to get more efficiency and lower cost through the use of dual sourcing. I am of the opinion that dual sourcing will not only enhance competition, but that the ultimate result will be lower costs.

Others will make the argument that you cannot have or should not necessarily have two contractors out there; because of tooling costs, capital costs, and other costs. They maintain that the ultimate result is that it will be more costly.

In your view, should we be using dual sourcing more or less in the area of procurement policy?

Secretary **Weinberger**. I am a hundred percent for increased competition every time. As far as worrying about too great capacity or double tooling or anything, we have to bear in mind should we ever have to go to a mobilization, it would be vital to have that kind of additional industrial capability.

Totally aside from that, the more competition we get, the better it is from every point of view. I think that is true even to the point of sometimes encouraging more suppliers by helping them with some of their initial costs.

I also think that it is vital not just from a cost point of view. You get better contracts. You get people competing with each other. They are willing to take penalties for poor work when inducements for good work are added.

You also get them to take design products which lend themselves to competition in the subcontracts.

DUAL SOURCING

Senator **Quayle**. As a rule of thumb, you would favor dual sourcing?

Secretary **Weinberger**. Absolutely.

Senator **Quayle**. As a means of not only instituting competition, but also dual sourcing as a general rule will result in lower cost?

Secretary **Weinberger**. That is correct. I would not stop at dual sourcing. I like multiple sourcing.

We are up against it in a very practical way now on very practical things. We are still forbidden to get our tanks competed. We have to use one supplier.

Senator **Quayle**. That is a congressional-imposed order.

Secretary **Weinberger**. We have fought it every time. I still wish it would be listed.

EFFICIENT AUDITS

Senator **Quayle**. On page 90 you noted DOD has added 2,000 auditors and investigators during the past 4 years. You also note that in the coming year DCAA will place greater emphasis on conducting special reviews on major weapons system contractors and subcontractors.

The emphasis on having efficient audits is laudatory. We had a hearing last week and some of the people came and complained not about the audits, but they had basically four different sets of auditors coming in and essentially, although they would go in different areas, there was an overlap.

GAO is one of the auditors. What about the other three? You have the Auditor General, DCAA and now you have the Inspector General. You are proud of the fact you added 2,000 auditors.

As we are looking at the whole idea of efficiency, it is somewhat of a two-way street. Could we consider the possibility of looking at serious reform, how we conduct audits, and perhaps there is room for streamlining or serious reform, how we go about in DOD in getting a good comprehensive audit without being a real instrusion into the marketplace and adding costs unreasonably.

Secretary WEINBERGER. That is a very good area to look into. We will be glad to do it with you and your subcommittee.

At the moment, the situation was such when I came in I thought it was vital that we try to get at it as quickly as possible. Frankly, I would rather over audit than under audit because we have found the audits have been very cost effective in every way. Any duplication can indeed be a cost-increasing factor and we are certainly more than happy to look into it.

Senator EXON. You do think this is a valid concern where three different auditors go in there and conduct overlapping audits?

Secretary WEINBERGER. Yes. We wanted to get at the root causes as quickly as we could, and we may very well be doing more auditing with particular situations than is required. We don't want to duplicate anything. We don't want to under audit either.

I would be delighted to see if we can eliminate anything that amounts to harassment or anything of that kind.

SOVIET ARMS CONTROL NON-COMPLIANCE

Senator QUAYLE. Last Friday the Senate received copies of the President's report on the Soviet arms control non-compliance that confirms Soviet construction of major ABM radar and deployment of a mobile ABM radar violated the ABM Treaty of 1972.

In your opinion, are these clear violations of the 1972 ABM Treaty?

Secretary WEINBERGER. Yes, they are.

Senator QUAYLE. Do our allies agree with that proposition that it is a clear violation?

Secretary WEINBERGER. I think some of them certainly do. I don't know about all the allies. It is a large list. I think people who have examined this as we have, have the same basic feeling. Others may not.

To the best of my knowledge, many of our allies share this view.

Senator QUAYLE. Are we going to continue to abide by the ABM Treaty?

Secretary WEINBERGER. We have said that we would. There are ways of modifying it. We do stick by treaties, we do abide by treaties. If we feel it necessary to make any changes, we would plan to use provisions within the ABM Treaty itself for making those changes.

There was one provision in the ABM Treaty that has never been carried out and that was a clause to the effect, an addendum, that we should within a very short time after the signing of that treaty, back in 1972, meet again to discuss bringing about major reductions in offensive systems. Unfortunately, that has not happened.

DOUBLE STANDARDS ON TREATY COMPLIANCE

Senator QUAYLE. I guess the question I have, if the Soviets are clearly violating the treaty and we say we are going to go ahead and comply with it, why should we have a double standard?

Either we are going to comply with it and they are—why should we comply with it and not allow them to comply with it?

Secretary WEINBERGER. I think it is simply a matter of whether or not we want to adhere to our basic policy of respecting the sanctity of treaties. If we believe it is necessary to modify the treaty, to do it the way provided in the treaty itself.

There are ample opportunities to do that. We would propose to do that. I saw one interesting modification proposed by some groups a few days ago. That was we should modify the treaty to permit the Soviets to build this radar.

That is not quite what I had in mind, but it is possible to make modifications in the treaty, and if we believe it necessary to do that as a result of what I hope would be, for example, the success of the Strategic Defense Initiative research, then I would be strongly in favor of seeking modifications.

Senator QUAYLE. Since they have violated it and they have clearly violated it, then in essence what I am hearing you saying is that we should proceed to modify the ABM Treaty because otherwise you have a situation where they can go ahead and violate it and we are going to go ahead and live with it.

That is not a terribly ethical contract.

Secretary WEINBERGER. It is not. We think they have violated the treaty. That is one issue over here.

What we are trying to do is to develop the Strategic Defense Initiatives to the point where it is ready for deployment, and request modification of the treaty. We would propose not to violate the treaty, but to report the need that we have to change it, and to go about carrying out the provisions that are in the treaty itself.

Senator QUAYLE. In the treaty's preamble, you refer to it as reduction of offensive weapons. It says "toward reductions in strategic arms." That was back in 1972 when the ABM Treaty was signed.

How important do you think this understanding to reduce the strategic arms is to the effectiveness of the ABM Treaty?

Secretary WEINBERGER. It underlies it. There are two fundamental assurances underlying the ABM Treaty.

One was that both sides would adhere to it and there would, therefore, be only the defensive system permitted, one around Moscow and one around Washington, later changed to Grand Forks, which we abandoned.

They are going ahead with the one around Moscow, strengthening it and improving it all the time.

That is one assumption about how both sides would stay on the defensive side.

The other one, which you just quoted, there would be major reductions in the offensive systems. Neither of those assumptions were true. The Soviets have broken the treaty with respect to the radar you mentioned.

They are also engaged in major efforts to increase and improve their defenses. They have also never agreed to any kind of reductions in offensive systems.

Two assumptions that underlay the treaty were not kept.

Senator QUAYLE. Violations of both assumptions underlying the treaty, going back to contract law, sort of renders the contract invalid?

Secretary WEINBERGER. You are now in a field that is beyond the reach of our Department.

Senator QUAYLE. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

Chairman GOLDWATER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

CUTTING THE DEFENSE BUDGET

Secretary Weinberger and General Vessey, the administration's defense budget is going to be cut. Everybody around here knows it. The issue is where it is going to be cut, how much it is going to be cut and not whether it is going to be cut.

But just where and how much is a critical question for our security, economic and physical security. This committee spends many months each year on questions of a strong defense. Each year we are told by you if we cut the administration's request, we will jeopardize the national defense.

Yet every year the Congress has made cuts anyway. In 1981 we cut $8 billion. In 1982 we cut $18 billion after you told us that "cuts would result in intolerable deterioration of our security," to use you words.

In 1983 we cut $16 billion after you told us "cuts would do severe damage to our national security." In 1984 we cut $20 billion after you told us the cuts would "definitely and clearly impair our security."

What has happened? Despite the cuts by Congress, the President just a few months ago said, "America has repaired its strength." Even you today say that "remarkable progress has been made to strengthen America's defenses."

In other words, Congress has ignored your dire warnings that this Nation's security requires us to rubber stamp your budget numbers each year. Now we are told, notwithstanding cuts by Congress, we have repaired our strength anyway.

In your written budget justification you again seek to justify huge increases, charts, brochures that show how much stronger the Soviets are in just about everything such as the chart discussed with Senator Nunn.

You continue to use campaign rhetoric, that we neglected our defense systems in the seventies, that the Soviets out-spent us and out-produced and out-deployed us in just about everthing.

In fact, the Soviet Union did grow faster than we did in the seventies. We surely didn't stand still. We and our allies consistently out-spent the Soviet Union and its allies.

That chart shows our defense expenditures along with our allies versus the Warsaw Pact, 1965 to 1985, the point that Senator Nunn was making. For example, we added more strategic nuclear warheads than the Soviets did in the seventies. I repeat that. We added more strategic nuclear warheads than the Soviets did in the 1970s and that is a fact that is not reflected by your chart No. 11.

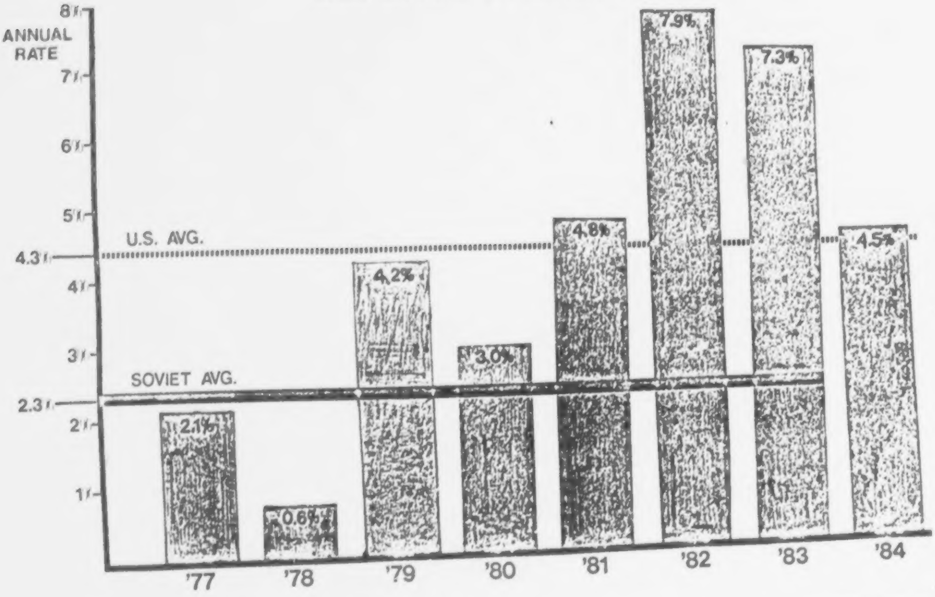
Nor does your chart show that we lead the Soviets in overall, we lead them in strategic nuclear weapons deployed, 9,903 to 7,955, according to the Joint Chiefs of Staff's latest unclassified information.

The Library of Congress, using slightly more current information, estimates that the United States lead the Soviets in this category 10,588 to 9,181. As a matter of fact, we had more real increases in our defense expenditures than the Soviets did in the last third of the 1970s.

From 1977 to 1984 our growth in real terms was almost twice that of the Soviet Union and that is the chart in front of us now. Take a look at our average, 1977 to 1983, compared to their average for the same years.

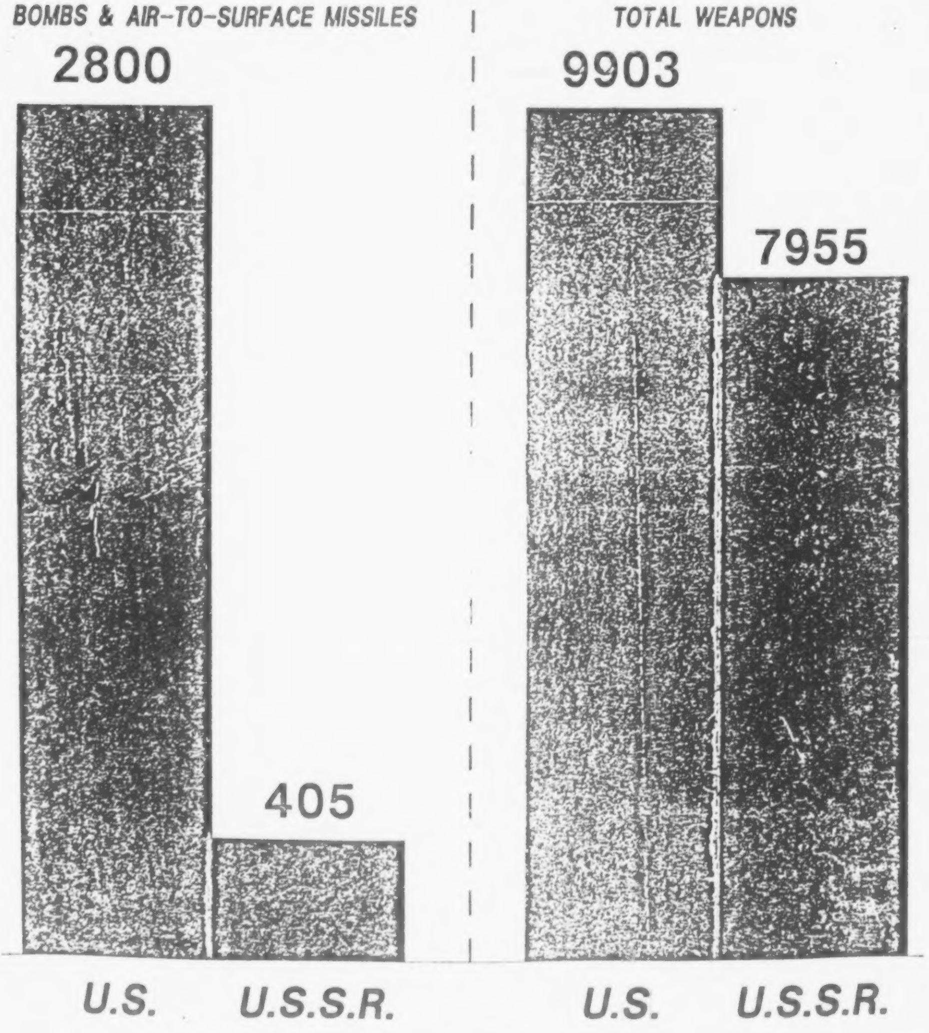
Those blue columns show our real growth in the year 1977 to the year 1984 declines in real growth in the first two-thirds of the decade of the seventies were mainly the result of winding down to normalcy after the Vietnam spurt.

REAL GROWTH IN U.S.-SOVIET DEFENSE SPENDING



Sources: Defense Department, Omb Nato Information Service

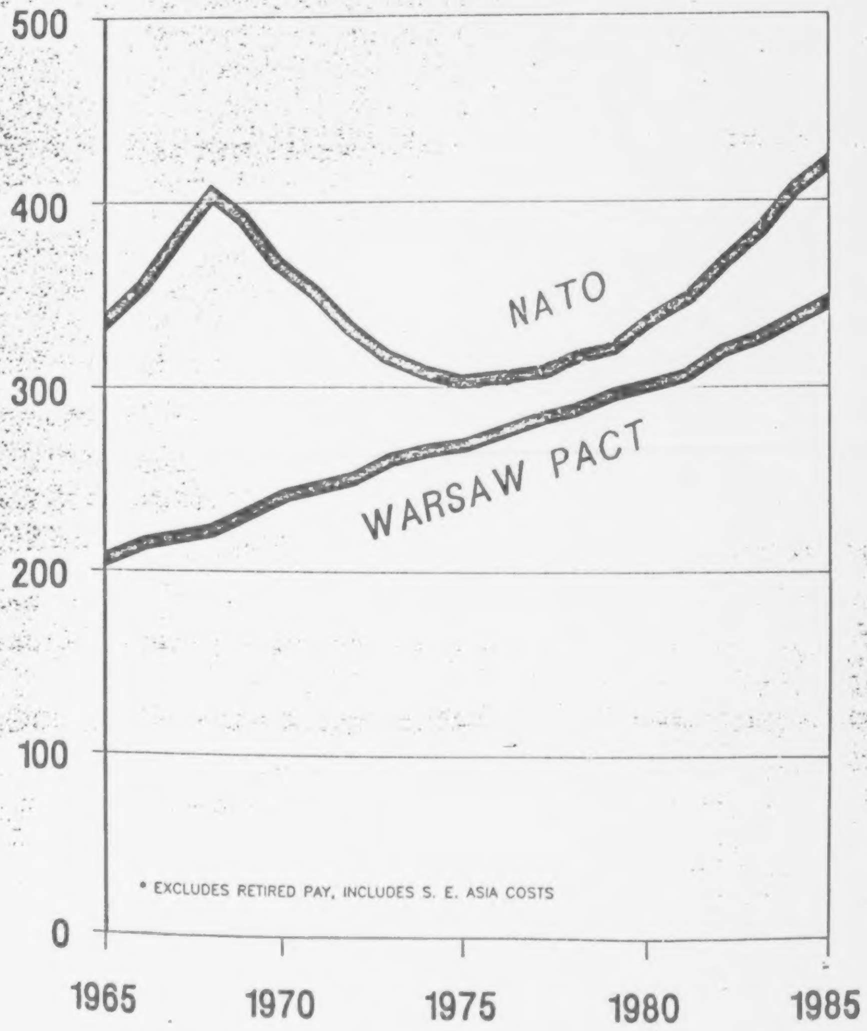
U.S.–SOVIET STRATEGIC NUCLEAR WEAPONS



SOURCE: Department of Defense and Organization of the Joint Chiefs of Staff

DEFENSE EXPENDITURES

(IN BILLIONS OF FY 1985 DOLLARS)



[illegible]

The defense rhetoric of the administration has been exaggerated. Two years ago the President said, "In virtually every measure of military power the Soviet Union enjoys a decided advantage."

Now, it is 2 years later, the campaigns are over, upon reflection the President said our defenses are repaired. It is wonderful what can happen in 2 years. I won't quibble. I accept the President's judgment that our defenses are repaired or your phraseology that remarkable progress has been made.

I point out again this miraculous military recovery has come at the same time the Congress has cut the administration's budget request in each of the 4 years we acted upon it.

SPACE DEFENSE

I hope we will get on in some kind of unified fashion. It is those negotiations I want to ask you about this morning, particularly the space defense portion of those negotiations. I would note before asking you about them that one of the biggest budget increases that you seek is for space defense research and development.

Did I hear you correctly when you told Senator Warner that you are seeking $2.2 billion for the space defense initiative?

Secretary Weinberger: No, sir, you did not. What we are seeking is $3.7 billion.

Senator LEVIN. Mr. Secretary, I think you would agree there has been a huge increase in the request in the space defense R&D program. There is some confusion whether or not we are going to negotiate strategic defense weapons with the Soviets.

In a statement released today relative to your budget in fiscal year 1986 you state, "We plan to discuss space-based systems and ground-based systems that can attack targets in space."

Just a few weeks ago you said that, "I am ruling out the possibility of giving up strategic defense."

Secretary WEINBERGER. No.

Senator LEVIN. Let me finish the quote.

"I am ruling out the possibility of giving up a strategic defense, either in the research stage or if it becomes feasible, in the deployable stage."

Secretary WEINBERGER. I did not hear you add the rest of it. That is right.

Senator LEVIN. It seems to me that there is contradiction here.

NEGOTIATING SPACE-BASED SYSTEMS

Are we going to negotiate space-based systems or aren't we?

I would now like to ask this question. The first question. There seems to be some inconsistency in your opening statement on the question of whether we are going to negotiate space defense systems. You at one point said, I am just trying to clear up, it is very, very clear to me the ambiguity or conflict in the public record on this issue.

At one point you said and you say today, we will discuss space-based systems and ground-based systems that can attack targets in space in those negotiations.

Two weeks ago you said you are ruling out the possibility of giving up strategic defense either in the research stage or if it becomes feasible in the deployable stage.

If you are ruling it out, what is there to negotiate?

Secretary **WEINBERGER**. There is a great deal to discuss. There is perfect consistency in some of the statements you mentioned with respect to the degree of recovery we have made in upgrading the military strength of the Nation which needed repairing.

As far as the negotiations are concerned, there is a negotiation. One of the three subcommittees, so-called, in the overall negotiation is devoted to space and defense systems. There is a great deal to discuss there on both sides in view of the high expenditures and the strong efforts that the Soviets have made with respect to defensive systems for many years.

I said that we are engaged in a research program to determine the feasibility of the kind of thoroughly reliable strategic defense that the President believes, and that I believe very strongly, is the best way to peace.

We are not going to give up the research program designed to demonstrate whether or not that kind of program is feasible and can be had.

I said as far as I was concerned, I certainly would not want to give up the program if our research disclosed the fact it is indeed feasible. I didn't think that anything in the negotiations required it, nor would that be in any way desirable to give up a system which, if the research declares and discloses is feasible, will offer the world a greater hope for peace, and for the first time really, the freedom from the shadow of these nuclear weapons.

I would certainly not want to give that up and I don't know anybody who would.

Senator **LEVIN**. My time is up.

Thank you.

Secretary **WEINBERGER**. There are still all the other answers to the points that Senator Levin made in his opening statement.

Maybe the best way to do it would be for us to explain the ways in which we have increased our security, the ways it is essential to continue on that track and the fact that we have not had a test of that in the 4 years is one of the things for which I am most grateful.

Chairman **GOLDWATER**. The Chairman will welcome such an answer.

Secretary **WEINBERGER**. Thank you, sir.

[The information follows:]

In response to Senator Stennis question regarding our progress in the last 4 years relative to the Soviet Union, I outlined in some detail significant advances that enhance our national security. In summary, our best performance has been in the area of readiness. Increases in personnel readiness, expanded training and significantly higher availability rates for aircraft and equipment are outstanding examples. While trends in sustainability are difficult to judge, we have increased our own combat staying power through procurement of modern munitions and spare parts. Moreover, the foundations for significant improvements in force size and modernization have been laid.

We expect to do somewhat better in all of these areas over the remainder of this decade, as the effects of the Reagan defense buildup come more into play.

Chairman **GOLDWATER**. Senator Wilson?

But before you proceed, Senator Levin brought up an interesting point. Only once in the past 15 years and only four times in the past 25 years has Congress not reduced the Pentagon budget request.

I ask this statement be placed in the record.

Secretary WEINBEREGER. Thank you.

[The information follows:]

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1960	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971
DoD Appropriations Acts												
Request	39,282	39,679	46,251	48,284	50,057	48,401	58,823	69,930	76,211	79,945	78,389	71,582
Congressional Action	-47	619	244	66	-1,834	-719	-86	299	-2,057	-5,543	-5,722	-2,335
Appropriated	39,235	40,298	46,495	48,350	48,223	47,682	58,737	70,229	74,153	74,402	72,667	69,247
% reduction	.1	-1.6	-.5	-.1	3.7	1.5	.2	-.4	2.7	6.9	7.3	3.3
Net Budget Authority Available	39,235	40,298	46,495	48,350	48,223	47,682	58,737	70,229	74,153	74,402	72,667	69,247
Military Construction Appr. Acts												
Request	1,593	1,218	1,048	1,595	1,966	1,879	3,287	1,751	2,937	2,031	2,005	2,225
Congressional Action	-229	-223	-96	-276	-380	-308	-292	-146	-844	-273	-357	-97
Appropriated	1,364	995	952	1,319	1,586	1,571	2,995	1,605	2,093	1,758	1,648	2,128
% reduction	14.4	18.3	9.1	17.3	19.3	16.4	8.9	8.3	28.7	13.4	17.8	4.4
Net Budget Authority Available	1,364	995	952	1,319	1,515	1,500	2,921	1,528	2,013	1,675	1,569	2,038
Total Department of Defense												
Request	40,875	40,897	47,299	49,879	52,023	50,280	62,110	71,681	79,148	81,976	80,394	73,807
Congressional Action	-276	396	148	-210	-2,214	-1,027	-378	153	-2,901	-5,816	-6,079	-2,432
Appropriated	40,599	41,293	47,447	49,669	49,809	49,253	61,732	71,834	76,246	76,160	74,315	71,375
% reduction	.7	-1.0	-.3	.4	4.3	2.0	.6	-.2	3.7	7.1	7.6	3.3
Net Budget Authority Available	40,599	41,293	47,447	49,669	49,738	49,182	61,658	71,757	76,166	76,077	74,236	71,285

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1972	FY 1973	FY 1974	FY 1975	FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983
DoD Appropriations Acts												
Request	76,183	80,845	83,451	88,814	98,927	109,542	117,179	123,508	138,814	166,773	208,237	250,043
Congressional Action	-3,326	-5,460	-4,984	-5,235	-6,521	-3,862	-4,485	-2,674	-1,519	4,504	-3,018	-18,077
Appropriated	72,857	75,385	78,467	83,579	92,406	105,680	112,694	120,834	137,294	171,277	205,219	231,966
% reduction	4.4	6.8	6.0	5.9	6.6	3.5	3.8	2.2	1.1	-2.7	1.4	7.2
Net Budget Authority Available	72,857	75,385	78,467	83,579	92,406	105,680	112,694	120,834	137,294	171,277	205,219	231,966
Military Construction Appr. Acts												
Request	2,406	2,758	3,113	3,498	4,217	3,590	3,213	4,520	3,880	5,865	7,646	8,336
Congressional Action	-276	-338	-350	-320	-524	-16	-111	-520	23	-396	-401	-989
Appropriated	2,130	2,420	2,763	3,178	3,693	3,574	3,102	4,000	3,903	5,470	7,245	7,347
% reduction	11.5	12.3	11.2	8.9	12.4	.4	3.5	11.5	-.6	6.8	5.2	11.9
Net Budget Authority Available	2,042	2,324	2,662	3,076	3,585	3,461	2,986	3,881	3,782	5,344	7,114	7,224
Total Department of Defense												
Request	78,589	83,603	86,564	92,312	103,144	113,132	120,392	128,028	142,693	172,638	215,883	258,379
Congressional Action	-3,602	-5,798	-5,334	-5,555	-7,045	-3,878	-4,596	-3,194	-1,496	4,109	-3,419	-19,066
Appropriated	74,987	77,805	81,230	86,757	96,099	109,254	115,796	124,834	141,197	176,747	212,464	239,313
% reduction	4.6	6.9	6.2	6.0	6.8	3.4	3.8	2.6	1.0	-2.3	1.5	7.4
Net Budget Authority Available	74,899	77,709	81,129	86,655	95,991	109,141	115,680	124,715	141,076	176,621	212,334	239,190

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1960	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
Military Personnel														
Request	10,935	11,100	11,826	12,250	13,028	13,296	15,341	18,541	20,462	21,944	23,871	22,751	23,432	24,362
Congressional Action	-6	-19	59	-286	-402	-29	40	55	-464	-517	-863	-353	-468	-644
Appropriated	10,929	11,081	11,885	11,964	12,626	13,267	15,381	18,596	19,998	21,427	23,008	22,398	22,964	23,718
Net Budget Authority Available	10,929	11,081	11,885	11,964	12,626	13,267	15,381	18,596	19,998	21,427	23,008	22,398	22,964	23,718
Retired Pay														
Request	715	790	920	1,029	1,249	1,399	1,600	1,839	2,095	2,450	2,859	3,391	3,931	4,442
Congressional Action	-	-	-	-	-21	-	-	-	-	-	-	-	-10	-
Appropriated	715	790	920	1,029	1,228	1,399	1,600	1,839	2,095	2,450	2,859	3,391	3,921	4,442
Net Budget Authority Available	715	790	920	1,029	1,228	1,399	1,600	1,839	2,095	2,450	2,859	3,391	3,921	4,442
Operation & Maintenance														
Request	10,512	10,782	11,793	11,717	11,792	12,528	14,890	19,262	19,307	23,561	22,496	20,332	20,962	22,065
Congressional Action	-74	-65	-62	-28	-78	-82	21	-36	-298	-1,209	-961	-210	-408	-603
Appropriated	10,438	10,717	11,731	11,689	11,714	12,446	14,911	19,226	19,009	22,352	21,535	20,122	20,554	21,462
Net Budget Authority Available	10,438	10,717	11,731	11,689	11,714	12,446	14,911	19,226	19,009	22,352	21,535	20,122	20,554	21,462
Procurement														
Request	13,348	13,085	16,902	16,445	16,725	13,756	18,431	22,714	22,917	23,971	20,903	17,359	19,682	21,170
Congressional Action	-12	435	-187	202	-1,019	-334	-7	219	-916	-3,349	-3,045	-1,330	-1,905	-3,370
Appropriated	13,336	13,520	16,715	16,647	15,706	13,422	18,424	22,933	22,001	20,622	17,858	16,029	17,777	17,800
Net Budget Authority Available	13,336	13,520	16,715	16,647	15,706	13,422	18,424	22,933	22,001	20,622	17,858	16,029	17,777	17,800
RDT&E														
Request	3,772	3,922	4,790	6,843	7,262	6,722	6,860	7,040	7,273	8,006	8,260	7,447	7,980	8,796
Congressional Action	45	268	454	179	-313	-273	-139	54	-164	-455	-853	-442	-461	-837
Appropriated	3,817	4,190	5,244	7,022	6,949	6,449	6,721	7,094	7,109	7,551	7,407	7,004	7,519	7,959
Net Budget Authority Available	3,817	4,190	5,244	7,022	6,949	6,449	6,721	7,094	7,109	7,551	7,407	7,004	7,519	7,959
Special Foreign Currency														
Request	-	-	-	-	-	-	-	-	16	13	-	3	12	3
Congressional Action	-	-	-	-	-	-	-	7	-5	-13	-	-	-	-
Appropriated	-	-	-	-	-	-	-	7	11	-	-	3	12	3
Net Budget Authority Available	-	-	-	-	-	-	-	7	11	-	-	3	12	3
Military Construction (SAFEGUARD)														
Request	-	-	-	-	-	-	-	-	-	-	-	-	184	6
Congressional Action	-	-	-	-	-	-	-	-	-	-	-	-	-74	-6
Appropriated	-	-	-	-	-	-	-	-	-	-	-	-	110	-
Net Budget Authority Available	-	-	-	-	-	-	-	-	-	-	-	-	110	-

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1974	FY 1975	FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985 Est
Military Personnel												
Request	24,707	25,553	25,915	26,329	27,389	28,638	30,993	36,062	43,532	47,903	49,202	67,832
Congressional Action	-524	-657	-474	-168	-118	-28	-342	811	-795	-2,836	-857	
Appropriated	24,183	24,896	25,441	26,161	27,271	28,610	30,651	36,872	42,737	45,067	48,345	
Net Budget Authority Available	24,183	24,896	25,441	26,161	27,271	28,610	30,651	36,872	42,737	45,067	48,345	
Retired Pay												
Request	5,175	6,276	7,325	8,493	9,266	10,328	12,025	13,988	15,080	16,511	16,773	
Congressional Action	-24	-25	-	-111	-86	-59	-60	-100	-94	-356	-180	
Appropriated	5,151	6,251	7,325	8,382	9,180	10,269	11,965	13,883	14,986	16,155	16,593	
Net Budget Authority Available	5,151	6,251	7,325	8,382	9,180	10,269	11,965	13,888	14,986	16,155	16,593	
Operation & Maintenance												
Request	24,707	27,734	30,272	32,658	35,722	38,010	46,798	55,293	63,784	70,213	73,129	80,927
Congressional Action	-784	-1,812	-1,293	-595	-1,092	-124	-1,103	163	-1484	-3,837	-2,235	
Appropriated	23,923	25,922	28,979	32,063	34,630	37,886	45,695	55,455	62,299	66,376	70,893*	
Net Budget Authority Available	23,923	25,922	28,979	32,063	34,630	37,886	45,695	55,455	62,299	66,376	70,893*	
Procurement												
Request	20,142	19,867	24,693	30,601	32,550	33,484	35,420	43,952	64,925	90,104	92,645	107,586
Congressional Action	-3,111	-2,636	-3,487	-2,185	-2,457	-1,883	108	4,051	63	-9,354	-6,977	
Appropriated	17,031	17,231	21,206	28,416	30,093	31,601	35,528	48,004	64,988	80,749	85,668	
Net Budget Authority Available	17,031	17,231	21,206	28,416	30,093	31,601	35,528	48,004	64,988	80,749	85,668	
RDT&E												
Request	8,718	9,381	10,242	11,098	12,079	12,394	13,571	17,074	20,376	24,399	28,499	33,985
Congressional Action	-542	-505	-790	-664	-732	-579	-122	-543	-517	-1,693	-1,760	
Appropriated	8,176	8,576	9,452	10,434	11,347	12,355	13,449	16,531	19,859	22,706	26,739	
Net Budget Authority Available	8,176	8,576	9,452	10,434	11,347	12,355	13,449	16,531	19,859	22,706	26,739	
Special Foreign Currency												
Request	3	3	3	4	2	14	7	3	3	4	3	9
Congressional Action	-	-	-	-	-	-	-	-	-	-	-	
Appropriated	3	3	3	4	2	14	7	3	3	4	3	
Net Budget Authority Available	3	3	3	4	2	14	7	3	3	4	3	
Military Assistance SVN Forces												
Request	-	-	-	-	-	-	-	-	-	-	-	-
Congressional Action	-	700	-	-	-	-	-	-	-	-	-	-
Appropriated	-	700	-	-	-	-	-	-	-	-	-	-
Net Budget Authority Available	-	700	-	-	-	-	-	-	-	-	-	-

*Includes $5.0 million appropriated in CRA - P. L. 98-151.

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1960	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
Emergency Fund Southeast Asia														
Request	-	-	-	-	-	700	1,700	-	3,900	-	-	300*	-	-
Congressional Action	-	-	-	-	-	-	-	-	-149	-	-	-	-	-
Appropriated	-	-	-	-	-	700	1,700	-	3,751	-	-	300*	-	-
Net Budget Authority Available	-	-	-	-	-	700	1,700	-	3,751	-	-	300*	-	-
Revolving and Management Funds														
Request	-	-	20	-	-	-	-	535	241	-	-	-	-	-
Congressional Action	-	-	-20	-	-	-	-	-	-63	-	-	-	-	-
Appropriated	-	-	-	-	-	-	-	535	178	-	-	-	-	-
Net Budget Authority Available	-	-	-	-	-	-	-	535	178	-	-	-	-	-
DoD Appropriation Act														
Request	39,282	39,679	46,251	48,284	50,057	48,401	58,823	69,930	76,211	79,945	78,389	71,582	76,183	80,845
Congressional Action	-47	619	244	66	-1,834	-719	-86	299	-2,057	-5,543	-5,722	-2,335	-3,326	-5,460
Appropriated	39,235	40,298	46,495	48,350	48,223	47,682	58,737	70,229	74,153	74,402	72,667	69,247	72,857	75,385
Net Budget Authority Available	39,235	40,298	46,495	48,350	48,223	47,682	58,737	70,229	74,153	74,402	72,667	69,247	72,857	75,385
Military Construction														
Request	1,563	1,188	1,048	1,595	1,232	1,168	2,552	1,218	2,123	1,430	1,311	1,416	1,480	1,691
Congressional Action	-199	-193	-96	-276	-284	-228	-223	-120	-721	-262	-352	-94	-292	-335
Appropriated	1,364	995	952	1,319	948	940	2,329	1,098	1,402	1,168	959	1,322	1,186	1,356
Net Budget Authority Available	1,364	995	952	1,319	948	940	2,329	1,098	1,402	1,168	959	1,322	1,188	1,356
Family Housing														
Request	30	30	-	-	734	711	735	533	814	602	694	809	926	1,067
Congressional Action	-30	-30	-	-	-96	-80	-69	-26	-123	-12	-6	-3	16	-3
Appropriated	-	-	-	-	638	631	666	507	691	590	688	806	942	1,064
Net Budget Authority Available	-	-	-	-	567	560	592	430	611	507	609	716	854	968
Military Construction Appr.Acts														
Request	1,593	1,218	1,048	1,595	1,966	1,879	3,287	1,751	2,937	2,031	2,005	2,225	2,406	2,758
Congressional Action	-229	-223	-96	-276	-380	-308	-292	-146	-844	-273	-357	-97	-276	-338
Appropriated	1,364	995	952	1,319	1,586	1,571	2,995	1,605	2,093	1,758	1,648	2,128	2,130	2,420
Net Budget Authority Available	1,364	995	952	1,319	1,515	1,500	2,921	1,528	2,013	1,675	1,568	2,038	2,042	2,324
Total Department of Defense														
Request	40,875	40,897	47,299	49,879	52,023	50,280	62,110	71,681	79,148	81,976	80,394	73,807	78,589	83,603
Congressional Action	-276	396	148	-210	-2,214	-1,027	-378	153	-2,901	-5,816	-6,079	-2,432	-3,602	-5,798
Appropriated	40,599	41,293	47,447	49,669	49,809	49,253	61,732	71,834	76,246	76,160	74,315	71,375	74,987	77,805
Net Budget Authority Available	40,599	41,293	47,447	49,669	49,738	49,182	61,658	71,757	76,166	76,077	74,236	71,285	74,899	77,709

* Combat Readiness-SVN Forces

Total DoD Appropriations - Requested and Appropriated

(in Millions of Dollars)

	FY 1974	FY 1975	FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985 Est
Revolving & Management Funds												
Request	-	-	477	358	171	101	-	402	538	910	2,799	1,762
Congressional Action	-	-	-477	-138	-	-	-	123	-191	-1	-275	
Appropriated	-	-	-	220	171	101	-	525	347	909	2,525	
Net Budget Authority Available	-	-	-	220	171	101	-	525	347	909	2,525	
DoD Appropriation Acts												
Request	83,451	88,814	98,927	109,542	117,179	123,508	138,814	166,773	208,237	250,043	263,049	292,101
Congressional Action	-4,984	-5,235	-6,521	-3,862	-4,485	-2,674	-1,519	4,504	-3,018	-18,077	-12,284	
Appropriated	78,467	83,579	92,406	105,680	112,694	120,834	137,295	171,277	205,219	231,966	250,766*	
Net Budget Authority Available	78,467	83,579	92,406	105,680	112,694	120,834	137,295	171,277	205,219	231,966	250,766*	
Military Construction												
Request	1,821	2,141	2,887	2,282	1,719	2,765	2,158	3,559	5,181	5,436	5,487	7,158
Congressional Action	-257	-214	-527	-78	-79	-447	122	-199	-265	-924	-886	
Appropriated	1,564	1,927	2,360	2,204	1,640	2,319	2,280	3,360	4,916	4,512	4,601	
Net Budget Authority Available	1,564	1,927	2,360	2,204	1,640	2,319	2,280	3,360	4,916	4,512	4,601	
Family Housing												
Request	1,293	1,357	1,329	1,308	1,494	1,754	1,721	2,307	2,465	2,900	2,883	3,232
Congressional Action	-93	-106	3	62	-32	-73	-98	-197	-136	-66	-104	
Appropriated	1,200	1,251	1,332	1,370	1,462	1,681	1,623	2,110	2,329	2,835	2,779	
Net Budget Authority Available	1,099	1,149	1,224	1,257	1,346	1,562	1,500	1,984	2,198	2,712	2,668	
Military Construction Appropriations Acts												
Request	3,113	3,498	4,217	3,590	3,213	4,520	3,880	5,865	7,646	8,336	8,370	10,389
Congressional Action	-350	-310	-524	-16	-111	-520	23	-396	-401	-989	-990	
Appropriated	2,763	3,178	3,693	3,574	3,102	4,000	3,903	5,470	7,245	7,347	7,380	
Net Budget Authority Available	2,662	3,076	3,585	3,461	2,986	3,881	3,782	5,344	7,114	7,224	7,269	
Total Department of Defense												
Request	86,564	92,312	103,144	113,132	120,392	128,028	142,693	172,638	215,883	258,379	271,420	302,490
Congressional Action	-5,334	-5,545	-7,045	-3,878	-4,596	-3,194	-1,496	4,109	-3,419	-19,066	-13,274	
Appropriated	81,230	86,767	96,099	109,254	115,796	124,834	141,197	176,747	212,464	239,313	258,146*	
Net Budget Authority Available	81,129	86,655	95,991	109,141	115,680	124,715	141,076	176,621	212,334	239,190	258,035*	

*Includes $5.0 million appropriated in CRA - P. L. 98-151.

Outlay Impact of Congressional Action (First Year)

(in Millions of Dollars)

	FY 1960	*FY 1961*	*FY 1962*	*FY 1963*	*FY 1964*	*FY 1965*	*FY 1966*	*FY 1967*	*FY 1968*	*FY 1969*	*FY 1970*	*FY 1971*
Military Personnel					-	-	-	-	-	-507	-856	-353
Retired Pay					-	-	-	-	-	-	-	-
Operation & Maintenance					-	-	-	-	-	-979	-984	-357
Procurement					-118	-413	-404	-191	-124	-703	-1,815	-2,291
RDT&E					-	-	-81	-17	-84	-321	-664	-579
Total DoD Approp. Act					-118	-413	-485	-208	-208	-2,510	-4,319	-3,590
Military Construction					-50	-185	-244	-259	-304	-460	-345	-203
Total - DoD					-168	-598	-729	-467	-512	-2,970	-4,664	-3,793

Outlay Impact of Congressional Action (First Year)
(in Millions of Dollars)

	FY 1972	*FY 1973*	*FY 1974*	*FY 1975*	*FY 1976*	*FY 1977*	*FY 1978*	*FY 1979*	*FY 1980*	*FY 1981*	*FY 1982*	*FY 1983*
Military Personnel	-466	-640	-527	-654	-478	-174	-119	-29	-336	+788	-550	-2,757
Retired Pay	-10	-	-24	-25	-	-111	-86	-59	-60	-100	-43	-355
Operation & Maintenance	-386	-561	-727	-1,633	-1,371	-738	-1,012	-298	-935	-59	-511	-2,818
Procurement	-1,993	-2,023	-2,514	-2,735	-2,761	-2,854	-2,598	-2,344	-1,857	-491	+119	-962
RDT&E	-471	-679	-635	-706	-775	-708	-706	-633	-316	-395	-266	-970
Revolving & Management Funds	-	-	-	-	-	-	-	-	-	-	-82	-1
Total DoD Approp. Act	**-3,326**	**-3,903**	**-4,427**	**-5,753**	**-5,385**	**-4,585**	**-4,521**	**-3,363**	**-3,504**	**-257**	**-1,333**	**-7,863**
Military Construction	**-107**	**-58**	**-23**	**-13**	**-6**	**-1**	-	-	-	-	**-69**	**-164**
Total - DoD	**-3,433**	**-3,961**	**-4,450**	**-5,766**	**-5,391**	**-4,586**	**-4,521**	**-3,363**	**-3,504**	**-257**	**-1,402**	**-8,027**

	FY 1984	*FY 1985* *Est*
Military Personnel	-798	
Retired Pay	-179	
Operation & Maintenance	-1,753*	
Procurement	-741	
RDT&E	-996	
Revolving & Management Funds	-296	
Total DoD Approp. Act	**-4,763***	
Military Construction	**-98**	
Total - DoD	**-4,861***	

*Includes $5.0 million appropriated in CRA - P. L. 98-151

Chairman **Goldwater**. Senator Wilson?

DAY-TO-DAY READINESS

Senator **Wilson**. Let me just ask a question. I note the poignancy with which the Chairman in his prepared testimony has stated:

> As the Congress considers the defense budget, I urge the members to remember the need for day-to-day readiness. Under modern conditions hasty improvisation of battle-ready forces is not practical even if the national treasure is spent without restraint.

I don't think anyone would argue with that, certainly not as a general statement. Yet if we are going to compel the Defense Department to spend less than you are seeking, I would ask you: Isn't it true that whereas it is virtually impossible to telescope defense and by delaying it, you lose time that you never regain?

Secretary **Weinberger**. That is correct and you add to your cost.

Senator **Wilson**. Is not the same thing true when you stretch out the cost of procurement?

Secretary **Weinberger**. Always, yes, sir.

Senator **Wilson**. Isn't it true that however undesirable, and I will even say imprudent, that it is possible, at least comparatively, to in a relatively rapid period of time mobilize and train manpower in contrast to the kind of things that we are talking about with respect to research and development and procurement?

Secretary **Weinberger**. You have, with the figures we have now, the way the system is working and the number of retentions and particularly the figures we didn't put up on the chart, the career officers staying in and not taking resignations early, you have ability to train and surge with respect to mobilization training that is essential.

But when you are talking about aircraft carriers, missile systems, new tanks or improvements in the weapons that the troops have to carry, you are talking about a research and development period and trial production period spread over many years.

You can't go in the hardware store and buy these things. There is a long delay.

Senator **Wilson**. Isn't it true when we are discussing readiness we are talking both, General Vessey, about modernization and the training of troops to use these new and better weapons?

General **Vessey**. That is true.

Senator **Wilson**. As much as my colleague, Senator Exon, would deplore any further cuts in readiness, I would suggest to him that that is unfortunately the wiser path to take if we are confronted with these imprudent choices because it seems to me that what we are talking about is the ability to surge and to train people with modernized weapons if we have to.

But if we have failed to modernize, it seems to me we not only lack credibility at the bargaining table in Geneva, but we are going to lack credibility in terms of conventional capability as well.

I note that the so-called big ticket items in this budget, if they were cut, would reduce the spending a very small amount of the total.

FORCE STRENGTH

So, let me ask you, Mr. Secretary, notwithstanding the poignancy of your statement, would you not agree if we are compelled to make such imprudent choices, the lesser of the evils would be to cut back perhaps even on force strength if we were facing that kind of level of cut imposed by Congress?

Secretary WEINBERGER. Senator, they are all very imprudent choices. Our force strength is not now of the size that it may ultimately have to be. So, I would think that you would have some very serious problems if you cut back on force strength, both militarily, and, I am afraid, economically.

Senator WILSON. I don't disagree for a moment. I think we would have serious problems as well.

I would say if you are compelled to make the choice, is that not the choice you would make?

Secretary WEINBERGER. Let me answer it this way.

One of the first priorities we have tried to fulfill, among many that we had to deal with all at once, was to make ready what we had. It is essential that we do that.

Frequently, people talk about giving up whole systems. Again, most of the systems that are before you are systems that are needed, and the need is demonstrated.

What we get into, then, is a slower rate of acquisition which means pushing the cost up for something that we all agree we need. There aren't any easy choices. I would not feel that cutting force structure is a sound way of protecting our security.

Senator WILSON. If you were to exempt SAC, exempt the rapid deployment forces, what would a 90-percent manning level do to readiness and to the overall capability of the armed services?

Secretary WEINBERGER. We are not much above that in most of the units. The idea that we are running at a hundred percent is unfortunately not correct.

General VESSEY. That is about what we run at.

Senator WILSON. We are about at 90 percent now?

General VESSEY. That is right. Ninety percent of the wartime requirement.

Senator WILSON. If you were compelled to reduce further, at what level do you think you are risking serious credibility problems in any theater and I ask you to be as detailed as possible.

General VESSEY. Our strategy is to deter. We want to deter the other fellow from attacking us by making clear on a day-to-day basis he can't achieve his wartime objectives; and that means we will do it with smaller forces than he has, taking advantage of being on the defensive and that means having ready forces, well-trained forces in order to deter that attack.

Now, at the same time you face the problem that you brought up. We have been successful today and we have deterred attack today. We want to be able to do it tomorrow, the next day, 5 years from now—which means we have to engage in a balanced program of research and development and weapons modernization throughout.

That is our strategy. We need to pursue a balanced program that recognize all those facets.

POLICING PROCUREMENT ABUSES

Senator WILSON. Let me shift to a different subject.

Mr. Secretary, I am impressed with the effort that has been made to try to police procurement abuses. The audits and hotline, I think, are commenable. I do wonder what that effort is costing?

I would ask if you are convinced that we might not achieve a better quality and also a better pricing on procurement if we were to do away with many of the steps which Congress has mandated for DOD and look primarily to a warranty and to competitive pricing or to the kind of competition that you have agreed is desirable?

Secretary WEINBERGER. We do get warranties. Congress has been very interested in that. Our only feeling about warranties is that you have to pay for warranties, they are not free.

There is a certain point at which they are either cost effective or they are not. Generally speaking, we like warranties, and generally speaking, this is one of the ways in which we judge between competing companies for particular contracts, how good are the warranties.

Senator WILSON. Do the warranties do away with the requirement for a number of these intermediate steps, these audits?

Secretary WEINBERGER. We certainly are most happy to look at it and work with you in eliminating any of the procurement steps that aren't required.

There is a lot of difference between developing a system, designing and developing it, and moving it into full-scale production. Different kinds of contracts are used for those different stages.

If there are too many stages to the procurement process, we would certainly be delighted to remove them. We have internally reorganized in the last few years by putting in charge, in acquisition after research and development is completed on a particular system, put in charge of just one assistant secretary who has that as his primary duty and who would be reporting directly to the Secretary.

I think that will improve things and concentrate and focus his attention on the whole question of acquisition including the point you mentioned.

Senator WILSON. Thank you, Mr. Chairman.

Chairman GOLDWATER. Senator Kennedy?

Senator KENNEDY. Thank you, Mr. Chairman.

STRATEGIC DEFENSE INITIATIVE

Mr. Secretary, you responded to some questions with regard to the SDI. I would like to get back to that issue for a moment, if I could.

I think any fair reading of the relationship between the United States and the Soviet Union in recent times in the area of strategic forces would cause one to subscribe to Toynbee's concept of challenge and response.

We see them develop an ABM system and we respond with the development of MIRV. We see the Soviets increase their air defense and we move in with the development of cruise missiles.

We hear your testimony if favor of a research program for the SDI, and we also hear your statement that you, yourself, are strongly committed to it.

The President of the United States is committed to it. But Ambassador Kampelman has stated that if SDI is fully implemented, it will still only be 90 percent effective. The best estimate used by the Institute of Strategic Studies indicates the Soviet Union has 10,000 warheads. That means that a thousand of those warheads will still be able to penetrate a fully deployed SDI system and hit targets in the United States.

What makes you believe the Soviet Union's response is not going to be just increasing their offensive capability, increasing their production of warheads and missiles.

Secretary WEINBERGER. I think they are doing that. They have been doing it right along.

Senator KENNEDY. Do you expect that will be their response if this program is implemented?

Secretary WEINBERGER. Let me finish, if I might.

I think they will make every effort to negate it if they can. My worry is, of course, primarily at the moment that I think they are proceeding very rapidly along with developing exactly such a system.

I very much hope they don't get that first. If they are able to have that kind of system and we don't, we will have a far more dangerous world. I don't doubt at all they will try, but the kind of system——

Senator KENNEDY. You mean they will increase their offensive capability?

Secretary WEINBERGER. I think they will try to overwhelm or otherwise defeat a strategic defense. We are aware of that.

Senator KENNEDY. This will mean an increase in the production of offensive nuclear weapons if this program is actually implemented and deployed?

Secretary WEINBERGER. I will have to finish my answer because sometimes it will obviate the necessity for your next question.

Senator KENNEDY. Sometimes.

Secretary WEINBERGER. What we are talking about here is unquestionably a Soviet attempt to increase and negate offensive capability and negate any effective strategic defense. We believe we know the ways they would try to do that. We would try to design the system so that it would indeed be effective against those attempts to negate it.

What we hope to do is to have a system which will render obsolete the need for these offensive forces. That is a long way down the road. That is what we hope for.

We would hope the research will disclose we can have it.

Senator KENNEDY. General Vessey, if the Soviets actually were to develop an SDI system that fulfills all the goals established for our SDI system, and if you are told that only 10 percent of American weapons will be able to penetrate that defense, would you come back to this committee and ask for an increased production of offensive weapons in order to be able to hit the targets which you have identified?

General VESSEY. It all depends on the state of the world, Senator. What we are looking for, I think, is a better and safer world.

Neither one of us wants to hammer each other with nuclear weapons.

Senator KENNEDY. We agree with that.

General VESSEY. I would state an arms control agreement is not going to do much for getting you there unless we have it——

Senator KENNEDY. From a military point of view, if the Soviets develop a system in which they are able to knock down 90 percent of the American strategic weapons, would you be satisfied with that or would you be back up here urging the Congress of the United States to increase the numbers of offensive weapons given the situation as it is in the world today between the United States and Soviet Union?

Could we meet our targeting responsibilities at the present time with one-tenth of our offensive strategic missiles?

General VESSEY. If theirs is reduced one-tenth of what it is now, we may be better off. It all depends on what we do with the rest of our defense efforts in the intervening period.

Our goal is going to be to make it self-evidently clear to the Soviets that they can't attack us and succeed.

Senator KENNEDY. I thought that was the strategy today?

General VESSEY. It is. I tell you that won't change.

Senator KENNEDY. If they were able to get a thousand warheads to land on the United States, how many deaths would that mean?

Secretary WEINBERGER. I don't know, sir. We are dealing in improbabilities. Nobody wants anything of that kind.

Senator KENNEDY. We are dealing with reality, too.

Secretary WEINBERGER. The death toll from even one would be far too high and far higher than anybody wants. What we are talking about is not a 90-percent effective system anyway. You were using that as a hypothesis.

Senator KENNEDY. Ambassador Kampelman has just written an article, co-authored in the New York Times magazine in which he does use those figures. Obviously, he has been briefed and he is aware of our capability.

Secretary WEINBERGER. It is important that we quote him correctly. What he was saying was even if the system is only 90 percent effective, it still would have a high value in devaluing the offensive systems.

We don't know what we can achieve and that is why we are seeking the money for research. We don't know the degree of potential that such a system would possess.

Senator KENNEDY. You do favor the program. You have testified you support the program.

Secretary WEINBERGER. Totally.

Senator KENNEDY. We don't want to leave here with the thought that we are going to research this out and not be committed to it. As I understand it, you are committed and the President is committed to this program?

Secretary WEINBERGER. We are going to spend a lot of money for research, and if that research shows that it is feasible, then we will not use it. I think that we should pursue it vigorously, and I hope successfully.

NUCLEAR WINTER

Senator **Kennedy**. If we had a thousand warheads that landed on the United States, would there be a danger of a nuclear winter?

Secretary **Weinberger**. They have been talking about nuclear winter. Again, we are talking about a lot of possibilities that I don't think are proven, but are equally horrible. I don't know whether one or two or three would produce a nuclear winter. We just don't know.

We wouldn't want to have any kind of suggestion that a thousand is all right, but one thousand one isn't or any nonsense of that kind.

All of this would be terrible. The goal of the Strategic Defense Initiative is to prevent that.

NPT TREATY

Senator **Kennedy**. Just on another subject, the administration supports the NPT Treaty?

Secretary **Weinberger**. Yes.

Senator **Kennedy**. Article 6 talks about the responsibilities of both countries to move toward a comprehensive test ban.

Do you think that item should be considered with the Geneva talks as well?

Secretary **Weinberger**. No, it wouldn't be because the agenda for that was very strictly set out in the original meeting in Geneva in January.

Again, with proper verifiability and ability to rely on verification, all that would be a desirable goal, but we don't have any of those items before the negotiators at Geneva by reason of the agreed upon agenda.

Senator **Kennedy**. Are those particular items you have just identified being pursued now within the Defense Department given the fact that the agreement will be expiring?

Secretary **Weinberger**. They are not being pursued within the Defense Department. My understanding is that the administration is aware of the expiration date and is taking appropriate steps through the proper agencies.

Senator **Kennedy**. Does that mean that you have been asked your view?

Obviously, you will be asked your view about any such undertakings.

Secretary **Weinberger**. I have not been personally. But we will have the treaty before us and the comprehensive one, I know in all of the discussions we have had, we keep getting back to the verification point, particularly after the President's report on the violations.

Senator **Kennedy**. Thank you.

Chairman **Goldwater**. Senator Denton?

Senator **Denton**. Thank you, Mr. Chairman.

This Senate feels that we are at a point where we are addressing irresponsible spending on the part of our Government. The issue really being faced today is that the degree to which that irresponsible spending, which we must correct, is found in Defense spending.

Of whether or not we should cut it, freeze it or reduce its growth, and if so to what degree.

This Senator agrees that the deficit is bad, that interest rates rise due to them, that the economy is hurt, there is an imbalance of trade because of the strong dollar, and that there is particular hurt in the agricultural sector. I am as enthusiastic as anyone about trying to find ways to reduce our spending.

With respect to the Defense Department share of the Federal budget, the appropriations which we make every year, I was interested in the emphasis by the Secretary and by our Chairman, on issues that seem to me to constitute the forest. There are millions of trees which we are addressing several of today, and I hope that we can get off them and back to the forest so that we can at least answer the question, a question like this one.

DEFENSE SPENDING GROWTH

Over the past 20 years looking at the budget, it seems to me that the growth in our Defense spending has been 11 percent. The growth in domestic spending has been 80 percent, 80 as compared to Defense, the increase by the others is nearly seven to one.

Secretary WEINBERGER. That is generally right, yes, Senator.

Senator DENTON. In spite of the fact that President Reagan and this administration has been able to increase our Defense expenditures over previous years, have increased our manpower, hardware, readiness, and so on. I would ask you both this question:

Are the threats to the United States, not only in terms of the United States territorial integrity, and population, but also threats to its interests, abroad including security and economic interests, are those threats less than they were? Relatively speaking, considering the time when President John F. Kennedy was our chief executive, when he was spending twice as much on defense as he was on social programs, are the threats to us, relatively speaking, now greater or less?

Secretary WEINBERGER. They are vastly greater, sir, in every way you can measure.

Senator DENTON. Not only in every way, I would maintain, but in very many places greater.

The Chairman mentioned my service in Vietnam, which is relatively insignificant. I was in the service of this country as a member of the Navy for 34 years day and night, 24 hours. Perhaps that prejudices me in favor of defense spending, but I certainly hope not.

I mention that because I believe in all honesty that the Senators who disagree with me, the Senator from Massachusetts, the Senator from Michigan, are honest men. I have had occasion to have honest conversations with them in the past.

I hope we can at least recognize that forest, that we are spending less now proportionately on defense and we have a greater threat against which we are mandated to provide security.

I hate to be repetitious, and I am not going to run myself out of time, I still have 3 minutes. I would maintain that it has been a series of errors. We are in a war, as it were, against an opposite kind of super power, with an opposite philosophy, with the design of taking over the world.

I believe that it has not been principally the executive department, the military services, the judicial branch, but the Congress which, over the period of the last 15 or 20 years, has cost us failure in security policy regarding places like Angola, Afghanistan, our hostages, in Iran, Central America, the Mideast.

Now, I say that in complete deference to my colleagues, whom I consider friends, but I am very desperately frustrated by the way in which the debate seems to have been framed, namely that we are going to cut each individual increment of expenditure and treat defense as if it is some kind of welfare program

We couldn't have a welfare program were we not defending our interests around the world. It is my intent to prove it this year in Congress, and I will ask you if you agree, I have taken it up with you before but, I have with our Secretary of Treasury and he has asked for a written report.

ECONOMIC LOSSES

Do you believe there is truth in the statement that the failures in our security policy have cost the United States economy not our security, but our economy, the domestic economy, over the past 15 years, many hundreds of billions of dollars considering the loss of access to the natural resources, to favorable trade agreements, to allies, to trade entirely? Are those economic losses not portending in the future to become even greater?

Secretary **Weinberger**. Yes, Senator, I think that is correct.

We have also seen in those same factors you have mentioned the causes for today's high defense budgets. We don't ask for high defense budgets because we like to spend money. We do it to respond to what has been allowed to grow up.

I agree with you completely on that.

Senator **Denton**. I would like to add my small wish to those who have congratulated you. It is not insignificant to point out that it was your initiative which uncovered the excess previously shown on the charts.

It is not your fault that you have not become known for that, and it is not known that most of those excesses were not permitted to take effect by you.

I also would like to congratulate General Vessey, in that he is one of the few Chairman of the Joint Chiefs, and I know the services rather well still, who has earned the respect of all the services. He has been a balanced and wise and prudent man. With that, Mr. Chairman, I conclude my remarks.

Chairman **Goldwater**. Thank you.

Senator **Exon**. Mr. Chairman, could you yield so that my friend and colleague can correct the record.

Maybe you meant that, but you said that President Kennedy spent more money on defense than welfare. We are doing that today.

Did you mean social programs rather than welfare?

Senator **Denton**. Social programs were getting half as much as the Defense programs did in John Kennedy's time. By any measure, percentage of Gross National Product or anything else. You might be stunned at the difference.

I will be happy in private to go over it with you from any point of view analysis.

Senator EXON. Thank you.

Senator DENTON. Social programs got half as much under Kennedy, I am just told.

Senator EXON. Those are social programs, not welfare?

Senator DENTON. That is correct.

Chairman GOLDWATER. Senator Bingaman?

STRATEGIC DEFENSE INITIATIVE

Senator BINGAMAN. First, to clarify your answer to one of Senator Kennedy's questions, I think you stated that if the research for the SDI program proves out, it will be a great mistake not to deploy the system.

Secretary WEINBERGER. That is true. Let me be very clear. I want to deploy the system. We don't want to do it if it is not feasible. Research is being undertaken to see if it is feasible.

I hope the research will prove it is feasible. Then I would strongly support under whatever circumstances might exist a deployment of a feasible system.

Senator BINGAMAN. Let me go to a different subject.

REAL GROWTH ESTIMATES

I notice on page 78 of your posture statement here you have a chart showing your estimates for the next 5 years. I am particularly interested—you show an 8 to 9 percent real growth in 1987 and 8 to 9 percent real growth in 1988.

Am I to understand that the Defense Department in doing its internal planning and making its internal program decisions is using those figures and assuming you are going to get an 8 to 9 percent real growth in those 2 years?

Secretary WEINBERGER. Senator, at the beginning of the hearing, I don't know whether you were here or not, I said there are printed in the budget and in various reports, notional figures of what the projection from this year's expenditures would bring us to and also making up some of the reductions that were incurred in previous years.

The figures that are printed here are some of the long-range forecasts, they do not represent anything like precedental decisions that have been made. They represent forecasts as to the projections of the spending required by last year's authorizations, what may be this year's authorizations, and so on.

All of this requires a very high degree of estimation. Those are some of the things we look at. If the threat diminishes, if we are able to get the kind of major reductions that Senator Exon talks about and I hope we can, then maybe these can be substantially lower. I don't know.

This is what the situation at present looks like.

Senator BINGAMAN. I understand these are estimates. I am wondering if they are the estimates the Defense Department is now using in drawing up its program?

I can understand estimates in the budget area. One of my problems in the Defense area is that it seems as though we are always authorizing more than we have money to fund. We are authorizing more programs that we can fund at the level we would like to.

I am just concerned that we not be drawing up program plans based on an 8 or 9 percent growth when in fact everybody on this panel is telling you that you will not even get 5.9.

Secretary WEINBERGER. What are we talking about is the numbers as we see them now that project out. The budget process within the Department is such that we would make allocations of portions of these sums to various services and agencies within the Department, depending on the programs that they have to complete, and so on.

We would then look at how their budget request stemming from that would pay out, what they would require. In all the 4 years that I have been there we have made major reductions in each of the service requests to meet the changing needs. I don't know if you were here at the beginning of the hearing.

Senator BINGAMAN. I saw your charts.

Secretary WEINBERGER. You saw the reductions that we have made. What we need to do, concerning these figures, is to understand that we need a starting place. These figures represent the normal pattern of expenditures that would result from this year's request, this is what they would project out to.

But that in no sense has been decided, it is final or it is anything other than the normal figures that you have to start with. As you saw, we reduced $36 billion during the course of just 1 year's considerations.

Senator BINGAMAN. Would you agree it would be helpful to the Defense Department if Congress passed a budget resolution this year that had our notional figures of what those out years would most likely be so that you would have better figures to work with?

Secretary WEINBERGER. It would depend, Senator. You did pass a resolution 4 months ago and we came $2 billion under that. I assume you feel it still has to be cut further.

It depends on how firm the congressional resolution is to stay with those figures.

Senator BINGAMAN. It should be as close to reality as possible.

Secretary WEINBERGER. We are out to 3, 4 or 5 years and sometimes you are longer than that away from the time when we will actually spend the funds that are listed here.

If there is any suggestion that any kind of resolution of that sort would have any degree of rigidity to it on the low side, then it would not only not be helpful, but distinctly harmful.

PAY CHANGE PROPOSALS

Senator BINGAMAN. Let me ask about the pay changes that you are proposing. I understand on page 115 here you propose an increase of 3 percent for military pay. I understand from the morning papers that the President is proposing a 5 percent cut in all civilian pay in the Federal Government.

I presume that means your civilian employees as well?

Secretary WEINBERGER. Indeed.

Senator **Bingaman**. I assume also that you support the 5 percent cut for your civilian employees. How does that affect morale if the military gets a 3-percent increase and civilians get a 5-percent cut in the Department of Defense?

Secretary **Weinberger**. I think there is general recognition over the years that military personnel have received far too low compensations for the special unique tasks they have to perform.

I don't think anybody is happy, including the President, about a 5-percent cut in civilian pay throughout the Government, but we have a deficit problem. We have to attack it in any way that we can.

There is a difference between civilian duties and military duties. That difference is recognized in the suggestion that there should be a 3-percent increase in military pay in the last quarter of the current fiscal year and then no addition to that all through 1986, even though originally we had hoped and still would like to have a proper maintenance of military pay with interest to predicted inflation.

Nobody is happy about any of these things. Unfortunately, we are, we think, required by economic necessity to make some kind of reductions of this sort.

SALT II TREATY

Senator **Bingaman**. Let me ask about the SALT II Treaty.

As I understand, we have complied with the SALT II Treaty even though it was never ratified. There are some limits, quantitative limits, on the number of launchers permitted there.

I am informed that on our present course it is very likely we will exceed those ceilings before the end of this year. Could you tell me what trade-offs or actions the Defense Department has in mind to avoid that or whether it is our intention to exceed those limits?

Secretary **Weinberger**. Senator, we are governed by Presidential decisions on these matters. The Presidential decision is to keep all options open until the matter actually arises. It does not arise until sometime in the neighborhood of August or September.

At that time we will have a decision. We will continue the policy of not undercutting SALT II or policy of approaching it from a different phase. We have not at this point the necessity of deciding that question.

We have not undercut the treaty to date. The decision as to whether we would have to or not would not arise until August. Meanwhile we are keeping all options open as to what course we should take.

Senator **Bingaman**. Let me ask one more question.

This is about your charts. I think it is chart 2 or 3 that you showed us where you cite a $53.25 billion reduction in budget authority and $58.5 billion reduction in outlays.

How much of this is reduction in programs and how much is due to lower inflation, lower fuel costs, the value of the dollar?

Secretary **Weinberger**. Which year, Senator?

Senator **Bingaman**. It was for 1981 through 1986, the chart that you showed us.

Secretary **Weinberger**. About half was due to inflation and lower fuel costs. I am trying to remember what portion of the reduced military pay that we would have recommended originally. Perhaps a little over half, counting reduced pay, from our original recommendation.

The balance has been, and what we like to call, better management in the sense of getting lower prices than were originally estimated and getting a number of bids that have come in below the amounts originally set aside for particular systems.

I would say it is roughly half and half. I can get you the exact percentage.

Senator **Bingaman**. Thank you.

Chairman **Goldwater**. Senator Gramm?

Senator **Gramm**. Mr. Chairman, Mr. Secretary and General Vessey, one of the problems in being a private in the Army, so to speak, is that by the time it is your opportunity to ask a question, most of them have been asked.

SOVIET UNION/WARSAW PACT EXPENDITURES

But I would like to go back to the figures about expenditures by the Warsaw Pact and the Soviet Union with respect to expenditures by the United States and NATO.

The implication drawn from those figures, I think, was first of all, that we are incompetent in translating expenditures of dollars into weapon systems or that, secondarily, somehow we are overstating the threat.

I would like to address this very briefly with a couple of questions. The chart to which I would like to refer is the chart comparing expenditures of the Soviets and Warsaw Pact with those of the United States and NATO.

Let us say hypothetically that the numbers are correct here and let me address a couple of questions to you about this.

Number one, what percentage of our total Defense outlay is for pay and compensation?

Secretary **Weinberger**. Normally about half. This year 42 percent.

Senator **Gramm**. What percentage as far as we can ascertain is expenditures by the Soviet Union on those comparable pay and compensation figures?

Secretary **Weinberger**. In the military, Senator, somewhere between 9 and 11 percent.

Senator **Gramm**. So, we are spending between four and five times as much on compensation as the Soviets because of the makeup of our society?

Secretary **Weinberger**. At least.

Senator **Gramm**. Can you describe to me the retirement program for military personnel in the Soviet Union?

Secretary **Weinberger**. No, sir, I can't. All I would like to say is that I would not like to experience it.

RETIREMENT PROGRAMS

Senator **Gramm**. How much are we spending as a percentage of our Defense budget on retirement and veterans' programs?

Secretary **Weinberger**. Probably about $18 billion for current retirement, as of now. Let us say between $18 and $20 billion.

Senator **Gramm**. Of course, not counted in either of these figures is the $24 billion veterans' program. The reality is that those figures tell us nothing about expenditures on weapons, nothing about expenditures on operation and maintenance, nothing about research and development.

They just tell us the difference in the makeup of our society and the society of our potential enemy.

Secretary **Weinberger**. Right. The red line, Warsaw Pact spending, has a degree of precision in it that I don't think anybody can really say is correct.

I know the sources of those figures and I know the intelligence community is weighing rubles and dollars and what it would cost the Soviets if they were spending it the way we would and vice versa, but they have hundreds of pots in which they can put these expenditures and hide them. You never know what the amount is.

However, measuring expenditures, if I may say so, is one of the worst ways of trying to determine the effectiveness of what you are getting. It is a very interesting point along the lines you are questioning.

Quite recently the Soviets have, through various sources, said that the kind of arms reduction treaty they would like would be one that would limit and reduce expenditures being made by both countries for armaments, which, of course, would be a wildly dangerous kind of act for us to sign because of not only their ability to hide it, but because of the fact that frequently they don't have any labor cost at all, where slave labor is involved, and frequently the cost of labor is so absolutely minimal that none of us would be able to tolerate it for more than a week.

INEFFICIENCY AND WASTE

Senator **Gramm**. One of the things that has always frustrated me—I served in the Congress for 6 years and my involvement in defense was always on the budget, but we would also go through, especially in the last 2 years, this long debate about waste and fraud and inefficiency; about cathode tubes, wrenches and coffee pots, and when it came time to write the budget, we cut weapons systems.

One of the things I would like to see changed in this debate, I would like to see Members given an opportunity to really cast votes on inefficiency and waste.

I have long believed that with respect to our waste and inefficiency, some of it comes from some petty little crook somewhere or from somebody who simply does not carry out their task. I contend that much of our inefficiency and waste is mandated by Congress. We have the Maybank Amendment, Davis-Bacon, limitation on contracting, sole sourcing, restraints on base closings and a thousand and one hurdles that the Congress puts in the way of the Defense Department in trying to operate efficiently.

At the same time Congress continually calls on the Defense Department to be operated as a business. Defense contracting is based on political decisions, not economic decisions, for example building the B-1 bomber with parts in 43 States to build a political base or to make it a public works program.

I could go on and on. I would like to ask you what you think is the possibility this year, assuming all of the rhetoric about waste and inefficiency and desire to control costs is real, (the Members of the Congress being willing to put their vote where their mouth is) for us to have an opportunity to vote on a reconciliation package as part of the budget that would eliminate prohibitions against efficient operation, that would strengthen the hand of the Pentagon to operate as a business and in fact would allow us to focus on the very items that are hot in the debate which over the last 2 years has resulted in our cutting weapon systems.

Could the Defense Department supply us a "wish list," so to speak of changes they would like to see made, changes this year or in the future that could give us real savings?

Secretary WEINBERGER. Yes, sir, we would be delighted to do it. We think there are major savings to be achieved in the repeal of some of the acts of changes in some of the legislative constraints that you mentioned.

They may not become administration proposals, but we could indicate to you the savings that would be involved if there were major changes in a lot of those legislative constraints that you mentioned.

[The information follows:]

REAL COST-SAVINGS SUGGESTIONS

There are numerous legislative changes that could be made that would improve the efficiency of Department of Defense operations and lead to real cost-savings in the budget. Major changes in present legislatively-imposed constraints would save money and strengthen my ability to operate the Pentagon by eliminating current prohibitions against efficient Defense operations. As I pointed out earlier, this list of changes may not become an administration proposal, but it provides information on how management and expenditures are affected by provisions which limit my ability to run the Department in the most efficient manner.

The proliferation of restraints absorbs a great deal of management time and has made it difficult to operate the Department with the kind of flexibility needed in rapidly changing circumstances. Over the last four years, we have made at attempt to eliminate unnecessary constraints that were imposed by DOD itself but other constraints have been legislatively imposed and hence cannot be modified by the Department.

BIENNIAL BUDGETING

Creation of a two year budget for the Department would promote program stability, allow a better chance for economic production rates, and allow increased time for cost-estimate planning functions, better program execution, and more thoughtful decisionmaking. A two year budget is a possibility for fiscal year 1987.

STREAMLINE BASE CLOSURE PROCEDURES

Legislative restrictions currently impose at least a 22 month delay from the time a decision is made to close a particular base until actual closure can commence. There are significant costs involved in the first year, but significant savings can accrue in the following years.

ELIMINATION OF CIVILIAN END STRENGTH CEILINGS

End strength ceilings have been imposed without consideration of specific programs. Although there appears to be an assumption that new missions and decreased missions affect personnel ceilings, no direct relationship has been established. Therefore, we have requested an elimination of civilian end strength ceilings for fiscal year 1986 in this year's budget submission.

REMOVE RESTRICTIONS ON CONTRACTING OUT OF COMMERCIAL/INDUSTRIAL TYPE ACTIVITIES (A-76)

Restrictions on contracting out of commerical or industrial activities are artifical barriers to efficient operations which create added costs. Functions that could be performed most effectively by the private sector are precluded from conversion to contract under current restrictions. Other functions which are more appropriately conducted by Government employees are turned over to the private sector.

Removal of these restrictions would result in significant cost-savings and increase the efficiency of Department of Defense operations.

RAISE THRESHHOLDS FOR SMALL PURCHASES AND ADVERTISEMENT IN CBD

Varying threshholds affecting small purchases and advertisements are currently in force. The Fiscal Year 1986 Military Construction Authorization request includes a proposal to raise to $25,000 the small purchase threshholds in the Davis-Bacon Act, the Walsh-Healy Act and the Service Contract Act. In addition, the Employment of the Handicapped Act, the Solid Waste and Disposal Act, the Employment of Qualified Disabled Veterans Act, the Small Business Act, and the Office of Federal Procurement Policy Act, all have different threshholds.

Of the 15 million procurement actions processed by the Department of Defense each fiscal year, 14.7 million, or 98% are actions of $25,000 or less. Each of these actions is potentially complicated by one or more of the threshholds noted above. The Competition in Contracting Act of 1984 (P.L. 98-369) requires special simplified purchasing procedures for contracts not exceeding $25,000 "in order to promote efficiency and economy in contracting and to avoid unnecessary burdens for agencies and contractors. . . ." More cost-effective and efficient practices for small purchases could be achieved by changing all existing threshholds to "the level established for small purchases" in the the Competition in Contracting Act of 1984.

While precise cost-saving figures are not available on potential savings, we estimate they range from $40 million for the proposal in our FY '86 Milcon Authorization submission to $100 million for an omnibus raise in all small purchase related threshholds.

As you can see this is not an exhaustive list. We have identified a great many additional legislative constraints that no longer serve the intended purpose but add to the costs of operating this Department. We will continue to analyze the potential benefits of removing these constraints or reshaping them, and I will let you know if we have additional proposals for legislative change.

Senator **Gramm**. Let me say I believe there is interest in doing something about the problem. I would like to see the list. I have outlined a few. There have to be many more.

I think it is very important that as we face the tight budget constraints, as we have a real menace from the Soviet Union, that we look at the way we have done business as usual with regard to Defense. At the same time we are calling for elimination of waste and inefficiency, we must change the law in such a way as to remove many of the legislative hurdles that produced the inefficiency in the first place.

Mr. Secretary, as a final point, I would like to say it seems to me that your good work paradoxically in dealing with this inefficiency, in routing out practices in procurement that have cost the taxpayers money (in fact, in my opinion, you have been the most effective Secretary of Defense in my lifetime in doing that) has in fact, had the effect of undermining public support for Defense. Many believe that we have so much money to spend that we are throwing it away.

We have lost the political high ground on the issue. I think it is vitally important that we gain it back. I can think of no better way of doing it than a legislative package aimed at eliminating waste and inefficiency.

Secretary **Weinberger**. That would be helpful, sir, and I appreciate very much what you have just said.

Chairman **Goldwater**. We will now have a second round of questions and we will terminate the meeting at the end of the questions. These will be 5 minutes in length.

I will start with my distinguished friend from Georgia, Senator Nunn.

Senator **Nunn**. Thank you, Mr. Chairman.

Mr. Secretary, I think the list that Senator Gramm has asked for will be helpful to us. I would hope you would add to it each time whether the administration recommends the change in that particular provision. That would be very helpful.

Secretary **Weinberger**. As I mentioned to the Senator, we would be glad to supply a list of the various legislative constraints. I am not able to state at this time whether it would come up as a formal administration recommendation.

Senator **Nunn**. I think a list would be helpful either way.

Could you also furnish at the same time the Grace Commission recommendations pertaining to Defense and have a tracing method of how many of them were implemented by Defense and which ones you recommend be implemented by law?

Secretary **Weinberger**. We had a chart on that this morning. We will be glad to furnish it to you and members of the committee directly.

In connection with Senator Gramm's question a moment ago, about 80 percent of the Grace Commission recommendations require legislative action.

[The information follows:]

President's Private Sector Survey on Cost Control (PPSSCC)

At the request of the White House, DOD has focused on 78 issues. Enclosure 1 is a list of these 78 issues that pertain to Defense and includes the Department's position as well as the PPSSCC 3-year savings for each issue. Enclosure 2 provides information on the 50 issues where we agree with the Grace Commission as well as an indication of the actions which the Department has taken with regard to these issues.

Many Commission recommendations are based upon ongoing DOD actions, including increasing competition and multiyear procurement, and seeking more program stability. In fact, forty of the Grace issues that we support were included in our fiscal year 1985 or prior budgets and are projected to result in savings of $17.4 billion (fiscal year 1985-1987) or $28.3 billion (fiscal year 1984-1989). Further, we have included nine additional Grace Commission issues in our fiscal year 1986 budget with anticipated savings of $673.6 million during the fiscal year 1986 to 1990 time period.

Congressional action would be required to implement Grace Commission recommendations shown at Enclosure 3.

March 21, 1985

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

ARMY Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
1	Recruit/Training/Distribution - New Enlistees	1	$189.5
2	Overseas Tours of New Enlistees	4	253.6
3	Family Moves in European Tours	4	226.4
4	Officer Training Moves	4	64.5
5	Unit Rotation/ Regimental Concept	4	132.4
6	Extending Army Careers	4	387.3

a/ - Positions:
1 - Already in the Budget (Savings in the FY 85 Budget or actions initiated during that time period)
2 - Solid Recommendation-Should seek implementation
3 - Good Recommendation but implementation would be delayed or result in less savings (Savings in the FY 86 Budget)
4 - Programmatically Infeasible/Undesirable
5 - Major pricing or technical flaws make savings impossible
6 - Legislatively infeasible
TBD - To Be Determined

b/ -As a result of eliminating duplication, Army-10 savings were reduced by $2,240.9M, Army-11 by $662.0M and Army-17 by $26.4M.

c/ - The PPSSCC savings for Army-16 were estimated $891.6M, however, $18M of investment costs were over looked. The savings should be $873.6M which represents an Army adjusted figure.

d/ -Grace initial estimate of $180M, was revised to $177M.

Enclosure 1

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

ARMY Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
9	Learning Resource Centers	4	33.7
10	Major Weapons Systems Acquisition	1	370.8 b/
11	Major Weapons Procurement Stability	TBD	5,958.0 b/
12	Storage of Industrial Plant Equipment	3	30.2
13	Management of War Reserves	1	6.0
14	Ammunition Management	3	332.0
15	Organizational Structure of Army ADP	1	827.5
16	Organization for Cost Containment	1	891.6 c/
17	Cash Management	1	21.7 b/
20	Combat Vehicle Maintenance	3	26.2
21	Organization of Corps of Engineers	1	16.5
17	**ARMY - TOTAL**		**$9,767.9**

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

NAVY Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
3	Dual Sourcing	1	1,020.0
4	Modernization/Productivity Enhancement of Contractors	1	1,495.0
9	Naval ADP	1	177.0 d/
10	Aircraft Overhaul	1	105.0
11	Aviation Maintenance	1	360.0
12	NARF Engineering Staffing	1	30.0
13	Aircraft Power Plant Maintenance Mgmt	1	15.0
16	Career Management	4	25.0
8	NAVY - TOTAL		$3,227.0

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

AF Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
1	Financial Reporting and Control	4	$1158.5
3	Streamline Programming/ Budget Review Process	4	7.9
6	Civilian End-Strength Ceilings	TBD	96.0
7	Air Force Severance Pay	TBD	17.5
8	Consolidation of AF Reserve & National Guard	1	163.8
10	Air Guard and Reserve Bonus Program	1	30.4
11	Military Airlift Command - No-Show Passengers	1	49.6
12	Military Airlift Command - Contract Travel	3	19.9
13	ADP Modernization	1	580.6
20	Dual Sourcing	1	2422.1
22	Consulting/Management Advisory Services & Research	1	227.7
11	**AIR FORCE - TOTAL**		$4,774.0

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

OSD Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
1	Procurement of Petroleum Products	3	$513.0
2	Inventory Management and Control	1	6,074.2
3	Transfer of Consumable Items	3	123.2
4	Maintenance Depot Consolidation	1	589.0
5	Wholesale Depot Consolidation	3	115.5
6	Obsolete Conventional Ammunition	1	207.7
8	Consolidate Base Support Operations	1	993.0
9	Base Realignments and Closures	6	2,732.0
10	Unification of Traffic Management	1	84.2
11	Inland Container Transportation Proc	4	24.8
12	Container Detention Charges	1	4.9
13	Cargo Data Interchange System	1	5.0
14	Household Goods to Alaska and Hawaii	1	69.5
16	Defense Contract Admin Consolidation	4	297.9
18	Independent R&D Cost - Weapon Systems	4	331.0

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

OSD Issue #	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
19	Dept of Defense Laboratories	1	1,593.7
20	Common Weapons Sys Parts and Standards	1	7,329.7
25	Retirement Pay - Social Security Integration	TBD	273.9
26	Retirement Pay - High Three Base	TBD	121.4
27	Military Unused Leave at Retirement	TBD	125.6
28	Modify CHAMPUS	4	1,177.3
29	Direct Health Care Consolidation	TBD	943.3
30	Health Care Cost Containment	TBD	933.7
31	Uniform Sers Univ of Health Sciences (USUHS)	6	114.6
33	PCS Moves	3	331.0
34	Selective Reenlistment Bonus (SRB) Program	4	625.6
35	Aviation Career Incentive Pay (ACIP)	4	261.2
37	Procurement Audit Service (PAS)	1	1,655.0
38	Freight Bill Audits	3	216.6
39	Government Furnished Materials (GFM)	1	132.4
30	**OSD - TOTAL**		**$27,999.9**

SUMMARY OF 78 PPSSCC ISSUES AND SAVINGS BY REPORT

OTHER Issues	Title	Positions a/	PPSSCC 3 Year Savings ($ in Millions)
Privatization			
Priv. 5	Privatize Commissaries	6	$2,447.0
1	**PRIVATIZATION - TOTAL**		**2,447.0**
Procurement			
Proc 4	Multiyear Contracting	1	3,415.0
Proc 6	Acquisition Planning	1	2,940.0
Proc 7	Streamline Source Selection Process	1	980.0
Proc 8	DoD Cost Estimating and Scheduling	1	2,940.0
Proc 9	Integrate DoD Management	1	980.0
Proc 16	Consolidate DoD Contract Administration	4	185.0
6	**PROCUREMENT - TOTAL**		**11,440.0**
R&D			
R&D 1	R&D Strategic Planning	1	7,300.0
R&D 2	R&D Budgeting	1	3,670.0
2	**R&D - TOTAL**		**10,970.0**
Beyond PPSS CC			
EX-3	Spare Parts (AF-16)	1	1,375.0
EX-9	Dual Pay (AF-9)	4	331.0
EX-10	Military Leave Pay (Army-7)	3	9.4
3	**EX - TOTAL**		**1,715.4**
78	**GRAND TOTAL**		**$72,341.2**

March 21, 1985

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION [c/]	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
ARMY 1	Army can save money by improving planning and control of recruitment, training and distribution of initial entry enlisted personnel.	$189.5	Agree with Modification (1) - Training requirements branch established, but separate single manager is not needed. Transfer of training requirements system from ODCSOPS to ODCSPER is being considered.	0
ARMY 10	Army should more effectively manage the development and acquisition of major weapons systems.	$370.8 (-2,240.9 Duplicated)	Agree (1)- Army already working toward this goal (Includes savings PROC 9 and ARMY 11 less biennial budgeting)	[a/] $2,762.0
ARMY 12	Store only what industrial plant equipment is realistically usable. Simplify regs and require user funding.	$30.2	Agree (3) - DLA working toward disposal of unneeded IPE and enhancement of automation of the IPE mission.	[b/] $5.0
ARMY 13	Army reduce investment in war reserves - rely on commercial sources.	$6.0	Agree with Modification (1) - Review of the stockage list is a normal function. Stockage of commercially available items is precluded except for items prepositioned overseas because of transit delays.	0
ARMY 14	The Army should improve its management of conventional ammunition.	$332.0	Agree with Modification (3) - Management initiatives are being pursued when they can be proven cost effective with no degradation of readiness.	[b/] $2.5
ARMY 15	Establish a new major command for ADP - standardize, consolidate and modernize systems.	$827.5	Agree with Modification (1) - Army previously established the US Army Information Systems Command (USAISC). Now working to establish a Deputy Chief of Staff for Information Management.	[a/] $110.0
ARMY 16	Can the Army's organization and implementation of cost containment programs be made more effective?	$891.6	Agree (1) - Many desired end results are being accomplished or are under review. Savings under Value Engineering Productivity Capital Investment programs.	[a/] $967.2
ARMY 17	Can the Army improve its cash management?	$21.7 (-26.4 Duplicated)	Agree with Modification (1) - Army study underway including a limited Automated Teller Machine (ATM) test to support disbursing network.	0

Enclosure 2

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION[c]	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
ARMY 20	Improve management information to gain full advantage of Combat Vehicle - Reliability Centered Maintenance (RCM) at depots.	$26.2	Agree (3) - Army currently has an RCM report which is produced monthly.	b/ $29.3
ARMY 21	Reorganize the Army Corps of Engineers to be more efficient and cost-effective.	$16.5	Agree (1) - A Command strategy has been developed. Other consolidation and changes already planned by the Corps.	0
ARMY TOTAL 10 ISSUES		**$2,712.0**		**a/ $3,839.2** **b/ $36.8**
NAVY 3	Increase the use of dual-sourcing in current and future development contracts.	$1,020.0	Agree (1) - Navy taking additional actions to increase competition in the acquisition of major weapons systems.	0
NAVY 4	Navy should endorse and emphasize the DoD Industrial Management Incentives Program (IMIP) and the Manufacturing Technology Program (MTP).	$1,495.0	Agree (1) - Both programs are fully supported and the recommendations are already implemented.	0
NAVY 9	Shorten Research, Design, Development and Installation cycles of ADP. Establish an office of Navy ADP Plans and Operations.	$177.0	Agree (1) - The Navy has implemented the recommendations on the cycles of ADP. Have also established new Information Systems Division in OPNAV.	0
NAVY 10	Increase organizational level inspections to improve Navy aircraft maintenance (less depot overhauls and longer time intervals).	$105.0	Agree (1) - Good idea, it is being done as part of the 84/85 budget.	a/ $269.5
NAVY 11	Transfer aircraft maintenance responsibility from NAVAIR to the Fleets.	$360.0	Agree with Modification (1) - Fleet maintenance managers are already fully involved in the process. Do not agree to give type commanders responsibility for in-service life cycle aircraft maintenance management.	a/ $87.8
NAVY 12	Study reduction of Engineer staffing at NARFs in line with commercial airlines.	$30.0	Agree with Modification (1) - Navy making conscious efforts to improve staffing. Weapons System Support Board meets monthly to review and prioritize staffing requirements.	0

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION*	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
NAVY 13	Initiate new procedures to improve aircraft power plant maintenance	$15.0	Agree (1) - Some recommendations already implemented, others in progress.	a/ $3.0
NAVY TOTAL 7 ISSUES		**$3,202.0**		**a/ $360.3**
USAF 8	Review to consolidate and coordinate Air Force Reserve and Air National Guard activities	$163.8	Agree (1) - The DoD normally reviews operations to identify opportunities for consolidation. Disagree with specific PPSSCC examples	0
USAF 10	Prepare a special analysis of the effectiveness of bonus programs in the Guard & Reserve and eliminate or modify program.	$30.4	Agree (1)- Will study the question, but anticipate no major savings or changes	a/ $6.0
USAF 11	MAC should report and charge the sponsoring command for no show passengers.	$49.6	Agree (1)- No show reports are continuing to be developed and will allow for better management of no shows.	0
USAF 12	Require non-DoD agencies to use MAC negotiated rates and MAC flights wherever possible	$19.9	Agree (3)- Success is contingent upon OMB mandating the use of MAC services. Savings would accrue to other Federal Agencies.	0 ($9.0 non-DoD)
USAF 13	The Commander of AFLC should place increased emphasis on ADP modernization	$580.6	Agree (1)- The Air Force is aggressively implementing ADP modernization programs.	a/ $1.9
USAF 20	Expand the use of "dual-sourcing" in procurement.	$2,422.1	Agree (1)- Current program goes as far as feasible. Care must be exercised to ensure reasonable savings, based on cost/benefit analysis.	0
USAF 22	Improve management controls on consultants and related services along the lines of OMB Circular A-120	$227.7	Agree (1)- Improvements proposed are already being implemented as part of the budget.	a/ $4.1
USAF TOTAL 7 ISSUES		**$3,494.1**		**a/ $46.0***

*This total includes a one time savings of $34.0 million from USAF-6 which resulted from the Depot Maintenance Industrial Fund (DMIF) civilian ceiling elimination test.

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION[c]	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
OSD 1	Request broader statutory waiver authority to eliminate SBA set asides and other social concerns restricting economical acquisition of POL products	$513.0	Agree (3)- DLA was tasked to develop the legislation.	[b] $166.5
OSD 2	Modernize ADP logistics systems to improve inventory management and control	$6,074.2	Agree with Modification (1)- Studies underway; specific plans not yet developed. Would require substantial investment costs. DoD would focus on entire inventory management system.	0
OSD 3	Transfer 900,000 supply line items from the Services to DLA management, to improve management and control (Consumable items)	$123.2	Agree with Modification (3) - DoD has developed new criteria to determine who should manage the items. Savings will be lower than PPSSCC estimated.	[b] $9.3
OSD 4	Consolidate depot level maintenance functions and require strict adherence to uniform cost accounting systems	$589.0	Agree with Modification (1)- DoD has taken steps to require adherence to cost accounting systems to generate data necessary to evaluate consolidation decisions.	0
OSD 5	Consolidate wholesale supply depots. Use the Wholesale Interservice Depot Support (WIDS) study as a model.	$115.5	Agree with Modification (3)- Objective will be pursued through stocking items closer to the user. Wholesale depot consolidation not preferred.	[b] $78.6
OSD 6	Demilitarize the backlog of surplus and obsolete conventional ammunition by soliciting contract bids rather than in-house	$207.7	Agree with Modification (1)- Agree in concept, however, the Army estimates that it will cost more to contract. Will compare costs.	0
OSD 8	Consolidate more Base Support Operations across service lines.	$993.0	Agree with Modification (1)- Defense Retail Interservice Support (DRIS) Program underway.	[a] $93.4
OSD 10	Consolidate MAC, MTMC and MSC into one DoD Transportation Command.	$84.2	Agree with Modification (1)- DoD is using the system development approach to resolve surface transportation planning and execution problems. (This includes developing an adequate interface between the systems that manage surface transportation.)	0

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION[a]	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
OSD 12	Establish a cargo "dispatch" function and office to avoid container detention charges.	$4.9	Agree with Modification (1)- Steps are underway to reduce such charges. A new office is not necessary.	0
OSD 13	DoD should adopt a commercial Cargo Data Interchange System (CARDIS) now being developed by the private sector.	$5.0	Agree (1) -DoD will study CARDIS which is not yet a commercially viable system and use it to the extent it is feasible. Possibly integrate with MILSTAMP.	0
OSD 14	Use competitive bidding for household goods shipments to Alaska and Hawaii.	$69.5	Agree with Modification (1)- DoD is already using domestic shipping procedures to Alaska to the extent practicable. (Nov 1, 1984)	0
OSD 19	Improve data exchange and cooperation between Defense laboratories.	$1,593.7	Agree with Modification (1)- DoD is currently moving to achieve this type of improved research focus through the Military Services.	0
OSD 20	Mandate the use (wherever possible) of common commercial "specs" and standards, to minimize initial acquisition and life cycle costs of weapons systems.	$7,329.7	Agree with Modification (1) - Already emphasizing "commercialization" as much as possible, with some specific changes in the method of implementation. (DoD working on cost avoidance methodologies)	0
OSD 33	Eliminate unnecessary PCS moves and strictly limit the number of exceptions granted under the existing PCS policy.	$331.0	Agree with Modification -(3) DoD currently studying ways to reduce PCS moves and analyzing tour lengths and policy revisions to reduce costs.	[b] $56.3
OSD 37	Establish a special procurement audit service reporting to the IG.	$1,655.0	Agree with Modification -(1) The IG,DoD has established three divisions to concentrate on procurement and contract audit function.	0
OSD 38	Transfer post payment audits of freight bills from GSA to DoD and accomplish with private contractors.	$216.6	Agree with Modification -(3) Army has developed a transition concept plan and legislative proposal. DoD and GSA are working on details and timing. (Includes one-time savings to Treasury)	[b] $33.6

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION1/	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
OSD 39	Impose tighter controls on government furnished materials (GFM) provided to contractors.	$132.4	Agree with Modification (1) - A number of initiatives have been undertaken that will, in time, achieve the goals. Investment costs will wash savings.	0
OSD TOTAL 17 ISSUES		**$20,037.6**		**a/ $93.4** **b/ $344.3**
PROC 4	Expand the use of Multiyear Procurement (MYP).	$3,415.0	Agree with Modification (1) - Careful application of increased use of MYP is already in progress. Congressional approval of MYP candidates is required. (Includes savings for Navy 2 and Air Force 19)	* $2,985.3
PROC 6	Develop a comprehensive Program Management and Acquisition Plan.	$2,940.0	Agree (1) - Improvements in Program Management planning are receiving special attention. (Includes savings for Navy 1 & 5 and OSD 21 & 23)	a/ $10,087.8
PROC 7	Streamline the source selection process for contractors - use "lowest total costs" and monitor subcontracting.	$980.0	Agree (1) - DoD already selects contractors on the lowest cost to the government and will monitor and upgrade subcontracting.	0
PROC 8	Strengthen the cost estimating and scheduling functions in DoD.	$2,940.0	Agree with Modification (1) - The cost and schedule functions should be improved but not at the expense of de-emphasizing the importance of independent cost estimates.	0
PROC 9	Integrate program management organization within OSD and the Armed Services.	$980.0	Agree (1) - The thrust of the recommended actions have been implemented through the Defense Acquisition Program.	0
R&D 1	Can improvements in strategic planning, particularly in the goal-setting process, result in improved and more cost-effective R&D management?	$7,300.0	Agree (1) - Agree in principle, but most of the criticisms are not valid for DoD. PPSSCC recommended procedure is as likely to complicate and impede clear goal-setting as it is to encourage it.	0
R&D 2	Can the detailed process associated with the budget be improved to make the R&D management process more efficient?	$3,670.0	Agree with Modification (1) - Agree that multiyear budgeting be considered for further study and to significantly reduce the level of budget details. Most recommended changes require congressional approval.	0

AGREE WITH GRACE - 50 ISSUES

ISSUE	PPSSCC PROPOSAL	PPSSCC 3YR SAVINGS $IN MILLIONS	POSITION[c]	DoD SAVINGS ESTIMATE $IN MILLIONS (3 Years)
EX-3 (USAF 16)	More savings can be generated by "breaking out" spare parts procurement from prime contracts, either through competition or directly to vendors	$1,375.0	Agree with Modification (1) - A major effort is currently underway in this area and may result in some modification to the Defense Acquisition Regulation (DAR) provisions.	0
EX-10 (Army 7)	No accrued leave pay for new recruits until they have completed six months service.	$9.4	Agree with Modification -(3) Those separated prior to six months should not receive terminal leave payments. Legislation enacted	[b] $5.7
OTHER TOTAL 9 ISSUES		**$23,609.4**		**[a] $13,073.1** **[b] $5.7**
TOTAL 50 ISSUES		**$53,055.1**	**[c] (1) or (3) in this column indicates:** **(1) - Savings in the FY 85 budget or actions initiated during that time period.** **(3) - Savings in the FY 86 budget**	**$17,798.8** **[a] $17,412.0 DoD FY 85 Budget (FY 85-87)** **[b] $386.8 DoD FY 86 Budget (FY 86-88)**

March 19, 1985

PPSSCC ISSUES NEEDING CONGRESSIONAL ASSISTANCE

1. **Multiyear Procurement** - Grace pushes for an increase in the use of multiyear. (SEC 8052, FY 85 Defense Appropriations Act says 30 day advance notice on $20M multiyear)

   - Need congressional approval of FY 86 proposals

2. **Economic Production Rates** - Fund economic production quantities during entire production cycle

   - Need congressional support for quantities requested in FY 86 budget proposals.

3. **Health Care Cost Containment** - DoD FY 86 legislative proposals include some changes which require patients to pay a greater portion of health care costs

4. **Procurement of Petroleum Products** - Provide Defense Fuel Supply Center (DFSC) broader waiver authority to increase competition and thereby lower prices (DoD FY 86 legislative proposal)

5. **Civilian End Strength Ceilings** - Permanent removal of ceilings should improve efficiency.

6. **Lift Restrictions on Base Closures** - Grace says existing laws and procedures are cumbersome and time consuming.

7. **Uniformed Services University of the Health Sciences** - Grace recommends review for cost effectiveness.

8. **Biennial Budgeting** - Grace recommends Congress adopt a biennial budget.

9. **Walsh-Healey Act** - Amend to allow 10 hour, 4 day work weeks without overtime.

Enclosure 3

Senator **Nunn**. We would like to know the ones you recommend we legislate on. The last time I asked that question almost all the answers were negative.

Secretary **Weinberger**. The problem is the administration's current process. It has to go through the departments to get their concurrence. I could tell you what I personally might recommend, but I can't tell you today what the departments as a whole would recommend.

Senator **Nunn**. I would welcome both of them or just yours.

MARITIME STRATEGY

General Vessey, last week the committee received a briefing from the Navy entitled "Maritime Strategy." Witnesses stated it was the Navy's view of how they planned to prosecute conventional war if war should come.

In answer to questions, the witnesses indicated they had not coordinated that briefing with the Joint Chiefs of Staff.

Are you familiar with that briefing and could you tell us whether the Navy's maritime strategy does blend in with the JCS strategy?

General **Vessey**. The Navy's maritime strategy briefing is the overall view of the Navy Department on how the Navy would be deployed. The naval forces would be deployed by the Commanders in Chief of the Unified and Specified Commands. That is how our forces are deployed.

I have seen the briefing, or at least an earlier version of the same briefing, and the Joint Chiefs of Staff have seen the briefing. It is generally consistent with the plans of the JCS.

Senator **Nunn**. Generally consistent. Does that leave a lot of room for specific inconsistencies?

General **Vessey**. He who controls the assumptions controls the outcome of any of these war games, Senator. What the CINCs of the Specified and Unified Commands have to do is deal with the tomorrow that comes over the horizon.

It makes certain assumptions about how tomorrow will come over the horizon. They may or may not turn out to be exactly true. But it is a good briefing. It is generally consistent.

Senator **Nunn**. We can assume that is basically the strategy that the Joint Chiefs endorse in general?

General **Vessey**. I would have to see the latest version of the briefing before I sign up for it. I am sure if the Chief of Naval Operations, who is also a member of the Joint Chiefs of Staff, stamped his imprimatur on it, he is not going to do that without letting me know if he differs greatly from what the JCS have previously approved.

Senator **Nunn**. Mr. Secretary, just one other question.

SAVINGS THROUGH EFFICIENT PRODUCTION

You showed a chart a while ago that showed the amount of money we saved by efficient production rates.

Secretary **Weinberger**. Yes.

Senator **Nunn**. It is my understanding that we now have 92 major systems on production lines in the budget request this year and that 56 of them or 60 percent have been stretched in the fiscal 1986 budget over a longer period of time than was anticipated in fiscal year 1985.

Secretary WEINBERGER. Senator, you can't cut $36 billion for the budget without having it hurt somewhere. It does result in a longer time to acquire a lot of things. I have the whole list for you.

We have done a lot of this that we would much rather not do because of the need to make reductions.

Senator NUNN. My time is up.

Would you furnish for the record the amount that it is going to cost us over the acquisition schedule of these major systems, if my numbers are correct, on the 56 that we have stretched?

I agree with your point, I think we are producing at inefficient rates on far too many production lines.

Secretary WEINBERGER. Because of the reductions, we have to make in spending.

Senator NUNN. If we keep programming more over the 5-year period than we have funds for, we are going to, the last few years, to have to stretch. These savings you show wiil be dwarfed by the increase in production cost per unit.

Secretary WEINBERGER. We are at an efficient production rate now, but we certainly didn't want to have to do any more stretching. We have had to make reductions in many of the totals that we felt should be acquired, given the world situtation which, unfortunately, none of us made.

Senator NUNN. There are many systems that are not in efficient production rate now, but my time has expired.

Chairman GOLDWATER. Senator Cohen?

FRAUD AND ABUSE

Senator COHEN. I want to agree with my colleague from Texas when he says you have done a great job in combating fraud and abuse.

I also want to agree to some extent that Congress, in part, has been responsible for some of the inefficiencies. Even talking about stretching out programs is calculated to make it even more inefficient.

I want to disagree somewhat and say I believe some of our Defense contractors have gotten too much too quickly. I think you probably share that opinion, because there are a number of investigations ongoing right now.

At one time in our nuclear submarine building program, the contractor was under investigation for some multiple dollar abuses. There are charges directed toward Ford Aerospace, and the alleged kickback by Hughes Aircraft is being investigated by a Government unit.

You have rejected, thanks to your auditors and investigators, shoddy products at an unprecedented rate. I am talking about fighter jets, McDonnell-Douglas aircraft, missiles from Hughes, semi-conductors from Texas Instrument.

VIOLATION OF TREATIES

On another note, I would like to ask you about Senator Quayle's question on violation of treaties.

Do you intend to bring the violation of the radar situation in the Soviet Union to the SCC?

Secretary **WEINBERGER**. I think it has been brought to their attention many times, Senator. The report was not submitted quite as soon as it might have been simply because of the time involved in calling their attention to what was being violated. It has been brought to their attention. Obviously, we will continue to do that.

Could I add one quick word on the previous statement you made?

A lot of those deficiencies are not the result of being asked to do too much too quickly. They are the result of inherent defects in quality control and the unwillingness of many manufacturers to apply quality control.

We believe a great deal of that has been changed by the number of disqualifications we have made and the appreciation that we don't tolerate that kind of work.

NUCLEAR WINTER ISSUE

Senator **COHEN**. The Defense Department has been asked to file a report with the Congress on March 1 on this nuclear winter issue you referred to in your answer as to how many missiles will be enough to cause that phenomenon.

Do you expect to meet that date?

Secretary **WEINBERGER**. I think we will. We try to meet every congressional deadline. I hope we will.

UNITY AND COHESION AMONG ALLIES

Senator **COHEN**. Mr. Secretary, you talked once again about the resurgence of a sense of unity and cohesion among our allies. There is at least one problem that I have seen and that is with respect to New Zealand in terms of their announced policy against allowing U.S. ships to enter their ports unless we declare them to be non-nuclear powered and non-nuclear armed.

What sort of recommendation are you going to make in view of what I consider to be a very serious assault on allied cohesion?

Secretary **WEINBERGER**. We are very disappointed with the present stand of the New Zealand Government. We are making every effort to bring home to them the fact that, in our opinion, this, just as you said, constitutes a serious attack upon the effectiveness of an alliance which is absolutely essential to the future security of New Zealand, and, indeed in which we all have a mutual interest, the ANZUS Agreement.

I would hope that on further reflection, reinforcement by our statement with respect to it, that would result in a change in that policy.

At the moment they are taking and following a course that can only do, I think, great harm to themselves and I hope they will change it.

Senator **COHEN**. Thank you.

Chairman **GOLDWATER**. Senator Stennis?

NATIONAL GUARD AND RESERVES

Senator STENNIS. Mr. Chairman, I have a question here on National Guard and Reserves. I know it is of general interest. I won't ask it now, but I will ask unanimous consent that this question, along with two others, and my brief opening remarks be included in the record at the proper place.

Chairman GOLDWATER. Without objection.

Senator Quayle?

STRATEGIC DEFENSE INITIATIVE

Senator QUAYLE. Mr. Secretary, as we proceed down the road with SDI, knowing we will have R&D for a certain period of time, looking at the event of deploying some of the most promising technology in the Strategic Defense Initiative, when we get ready to deploy at that time, from what you know today, will we have to modify the ABM Treaty?

Secretary WEINBERGER. I think it is possible, yes. It might be necessary to take the steps provided in the Treaty itself to secure necessary modifications for that purpose.

PROCUREMENT

Senator QUAYLE. General Vessey, on the area of procurement, to get as good a program manager as possible and getting top-notch people in the procurement area, we have looked at the idea of career paths.

In my opinion, in the last couple of years we have made an extraordinary effort in this area in all services to really concentrate on getting as good a management as possible.

Yet when you look at the number of years that these individuals are involved in the procurement system, not necessarily the top guys in some of the major programs, but on the whole program managers, they are not really what I call procurement people. They come in the system and they go out.

I am wondering if you would think it behooves us, as we look to attract the very best and keep them in that system, to develop a very good career path from the day of enlistment to the very top, the top being the flag and general officers, that we try in our assignment to get more people at the top in the procurement area?

Do you think this is a legitimate concern that we ought to try to help get some cooperation from the services on making it more attractive and have certain incentives for people to stay in the procurement system and make it to the top through that career path?

General VESSEY. I think all services are trying very hard to build a corps of professional people in the procurement business, both civilian and military.

At the same time it is important to remember that when we are procuring weapon systems that we also want some of those people in the procurement business to understand what the weapon systems are used for, too.

If a guy is a buyer all his life—doesn't get out and understand what they are used for—then there are certain limitations in his ability.

So, we need both of those things in the total procurement system. We can do that. I think the services are trying hard to do that.

Senator **Quayle**. I agree there ought to be some sort of hands-on experience. But you can get that hands-on experience in a fairly limited amount of time.

It seems in the past that people sort of come in and go out of the procurement system. A lot of people have felt "I will not get to the top, I have to be the commander of this tank division or I have to have a ship or fly these various planes if I am going to be able to get to the top.

I wonder if we can get away from that. Understanding the mix has to be there, if we are going to get business people and get these procurement managers and give them the flexibility and authority, they are going to have to have this experience and the time spent in this system.

I put that out as a way we might be aiming to improve our procurement efficiency.

General **Vessey**. That is right. As I said, all the services are trying too hard to do that. It is unlikely that the guy gets to be Chief of Naval Operations on just the procurement side of the house. He is going to have to be an operations man. I would expect you would want it that way.

However, there is no reason in the world why the man who heads the top logistics outfit in the Navy cannot reach the top through the procurement business.

Senator **Quayle**. Not only the head of the logistics operation, but a few of the people underneath him as well.

General **Vessey**. That is right.

Senator **Quayle**. Thank you, Mr. Chairman.

Chairman **Goldwater**. Senator Exon?

STRATEGIC DEFENSE INITIATIVE

Senator **Exon**. General Vessey, what is your view as a military officer of the proposition that the Strategic Defense Initiative, if we can invent it and if we can deploy it, on what would be the first deployment area?

Would it be around a missile field or around a city?

General **Vessey**. It is far too early to tell that, Senator. A lot of new exciting, interesting technologies are being investigated. Past logic would tell you that it would be around the missile field.

I don't believe we should automatically assume that is to be the case as we go on in the future and investigate what has to be done.

Senator **Exon**. From a military standpoint, wouldn't it be safer to assume the first deployment would be around the missile fields?

Certainly from the military standpoint, would you not prefer that the first shield be over the missiles if, indeed, this is supposed to be a deterrent?

General **Vessey**. Conventional wisdom would tell us that. That is what we did the last time around when we elected to take the old ABM system and put it at one of our missile fields.

However, the things we are looking at now, the opportunity to get missiles over the entire range of their trajectories—and certainly what we want to do is destroy warheads wherever they are coming through—as I say, it is too early to tell.

SDI/STAR WARS

Senator **Exon**. Could you explain to me this ongoing controversy between the President and the press, I guess the electronic press more than the printed press, over the difference between the Strategic Defense Initiative and Star Wars?

It is a blurred distinction as far as I am concerned. Maybe you can help me out.

General **Vessey**. I ought to be the last one to explain anyone else's problems with the press. But the Strategic Defense Initiative envisions no particular war in the stars. We are talking about something that is a long way away from the stars and very close to the earth's atmosphere.

Senator **Exon**. The dramatizations that I saw on television which the President evidently had taken objection to involved a situation where we would have a deployment of some kind, possibly a combination of bases in the area of the stars or toward the stars and some ground bases.

Mr. Secretary, maybe you could explain to me the controversy that has erupted over the President's objection to the term "Star Wars."

Secretary **Weinberger**. It was originally designed and still applies as a method of steering the whole concept. Strategic Defense Initiative is what the President has proposed.

When people refer to it as Star Wars, generally they are people against the concept, those who don't like the idea and suggest that we should not be thinking about it.

I think the President's criticism has related to the designation. The actual concept is a concept under which we would destroy with non-nuclear means Soviet missiles at various stages of their attempt to reach any target in the United States.

You don't protect a particular target with a Strategic Defensive Initiative. You destroy missiles with non-nuclear means outside the atmosphere.

I think the President made the point two or three times that the reference to Star Wars as a means of sneering at it, does less than justice to the goal that he seeks, which is to reduce and hopefully sometime to render obsolete and completely impotent these nuclear missiles that have held us all in hostage for so long.

Senator **Exon**. Thank you.

Chairman **Goldwater**. Senator Wilson?

Senator **Wilson**. Thank you, Mr. Chairman.

SCOWCROFT COMMISSION

Mr. Secretary, the Scowcroft Commission recommended not only 100 MX's be produced, but also research and development proceed on a small mobile missile.

I would say that although it has been dubbed Midgetman, it probably should be more properly called Congressman in light of the fact its design has been shaped more by political considerations than by military considerations.

I have written you a lengthy letter which you may not have had time to look at. Actually it is a letter to Senator Warner and I sent a copy to you. My concerns relate to a number of different aspects. Let me ask this.

One of the concerns I have is that Congress in imposing a weight constraint has limited the ability of this missile to achieve its mission in the following ways. It currently will carry a guidance system that is so heavy that with the imposed weight constraint, it cannot carry penetration aids.

So, I am concerned about its vulnerability to even a rudimentary Soviet ABM technology.

Second, I think that my colleagues have likely forgotten that this recommendation of the Commission was in conjunction with their recommendation on the MX. A premature commitment to the small missile before we get either a treaty limiting warheads and throw weight or at least a sufficient MX force, providing them with an incentive for such an agreement makes it unlikely that we would ever get that agreement if we simply go ahead and develop the Midgetman without the MX force.

Finally, I have a considerable concern that the political as well as the dollar costs of the mobile basing mode may turn out to provide problems that dwarf even those that were associated with the basing of the MX.

For all these reasons, it seems to me that the schedule which has been imposed on the Air Force by congressional mandate is one that they should be relieved from pursuing. We should answer these other questions.

I would ask that you comment.

Secretary WEINBERGER. Senator, the idea of a single warhead missile has been examined many times, and has usually been set aside on the grounds that you have mentioned with respect to cost effectiveness.

The Scowcroft Commission recommended strongly that we continue all of our strategic modernization including the MX and that we add to that a single warhead missile of a smaller size, as you have indicated.

We are pursuing that research and development of that missile in accordance with congressional direction. There frequently have been expressed suspicions that our heart was not really in it, and so on, and these have led to a lot of restraint, as you mentioned, with respect to the size and weight limitations and other problems.

We are fully carrying out the directions of the Congress and will continue to do so. It is known, I think, and understood by all that it is an expensive missile, both to develop and ultimately to deploy because of the fact it has 1 warhead as opposed to 10 in the MX, and because it is not yet developed. All of these factors add to its cost.

The mobility aspect of it is an important one to obtain if we can. The Soviets have it. Their latest missiles system will be deployed even on an intercontinental missile with mobile types of launchers.

We do pursue it. We are under various congressional restraints with respect to size and weight, and maybe in time perhaps even the whole internal package. We do exactly what the congressional direction requires and we do it with some of the very best people we have: We do it with a full spirit in complying with the directions of the Congress.

Senator WILSON. Mr. Chairman, my time has expired, but I would hope that we could get General Vessey's response to the same question for the record and I would also hope, Mr. Chairman, that the committee will examine this set of questions because I confess to you I fear that before long we will have passed the point at which we have spent money and missed opportunities and missed some critical options.

I could not agree more that we need to pursue the advantage of mobility, but I think we have imposed on the Air Force some constraint that gives us presently a weapon that is not going to meet its assigned function.

[Additional information follows:]

ICBM MODERNIZATION

General VESSEY. As you pointed out, both the Peacekeeper and the small ICBM are part of a larger package. They are designed to complement each other's capabilities. Both are major elements of our strategy for improving deterrence and reducing the risk of nuclear war. The Peacekeeper is essential now to offset the Soviet hard-target advantage and to provide the necessary incentive for the Soviets to engage in meaningful arms reduction negotiations.

The Air Force is actively pursuing the small ICBM schedule directed by the Congress. The schedule is tight. The normal 15-year concept-to-deployment cycle is being accomplished in 9 years. We are attempting to minimize the risk in this program. Some of the best minds in the country have looked at our schedule and believe that it is possible to deploy the small ICBM as directed by Congress. The weight limitations that you mentioned do limit range and payload and probably complicate meeting the schedule. The range and payload limitations can be mitigated to some extent through tactics and basing locations. Finally, if we are confronted with major problems, we will consult with Congress on proposed changes to the directed program.

Most importantly, the President's Commission on Strategic Forces recommended, and the JCS agreed fully, that the Peacekeeper should be deployed immediately and the small ICBM should be developed as a future system to complement the Peacekeeper. Together, they are planned to meet the expected Soviet threat of the 1990's and beyond.

Chairman GOLDWATER. Senator Levin?

Senator LEVIN. Will the record be kept open for questions?

Chairman GOLDWATER. Sure.

MILITARY PAY

Senator LEVIN. You pointed out relative to the chart on defense expenditures we pay more than the Warsaw Pact, pay our military people more.

Are we militarily stronger because we try to pay—I emphasize try to pay—a decent wage to our military people when compared to the Warsaw Pact?

Does that add to your military strengths?

General VESSEY. I think that facet of our strength comes from our society as a whole. If the people of the United States would agree, we would get the same quality of people by paying a pittance and drafting people.

The United States has not agreed to do that. I think we are militarily stronger because our people are better. It does not depend on how we choose to get them in the Armed Forces.

Senator **Levin**. The pay increase you have in the budget for the uniform people this year won't add to our military strength?

General **Vessey**. With the system we have, the pay increase will help ensure that we continue to recruit and keep good people in the Armed Forces.

Senator **Levin**. Does that add to our military strength?

General **Vessey**. It certainly does.

DEFENSIVE NUCLEAR FORCES

Senator **Levin**. General Vessey, are we willing to have our defensive nuclear forces rendered obsolete by Soviet ballistic missile defense?

General **Vessey**. I think that we are in a technological race with the Soviets in strategic nuclear weapons just as we are with everything else. You are on that track and you are running and you are not going to get out of the race.

For example, our old ballistic missile submarines will have reached the end of their life in the next few years. They have to be replaced. They will be replaced with more modern ones. The same thing happens to the Soviets.

While we have been arguing whether or not to replace our intercontinental ballistic missiles, the Soviets have improved theirs two or three times during that period.

It is not a question of whether or not we are willing to do something. The Soviets are going to try to continue to make ours technologically poorer than theirs and we will continue to do that with theirs.

Senator **Levin**. Doesn't that in effect say that if we do not watch out, our defense nuclear forces will be rendered obsolete by their ballistic missiles?

General **Vessey**. I hope we are not willing to have ours rendered obsolete in the total sense by all the things we do.

Senator **Levin**. Will you go their ballistic missile defense?

General **Vessey**. Including their ballistic missile defense.

Senator **Levin**. Are we, therefore, presently identifying countermeasures to a Soviet ballistic missile defense?

General **Vessey**. We are always going to look at countermeasures to all their defenses

Senator **Levin**. Are we presently doing that?

General **Vessey**. Yes.

Chairman **Goldwater**. Thank you very much. Before you gentlemen leave, this is just the start of our hearings on the Armed Forces.

General Vessey, when the Army comes over I wish you would have them briefed on the question that Senator Stennis asked relative to the National Guard and the Reserves.

General **Vessey**. Yes, sir.

Chairman **Goldwater**. Because historically we have not gone into this during the time when we should.

General **Vessey**. There is a very good story to tell there. I hope it gets told completely so that it is in the record.

CHEMICAL WARFARE

Chairman GOLDWATER. On page 281 of the annual report to Congress there is a statement that might lead the casual reader to believe that the Soviets have not been engaged in chemical warfare to any extent.

Having served on the Intelligence Committee for the last 8 years, I am very, very well aware of how bad off we are. I intend to introduce legislation to correct that.

I would hope when the Army comes over they are ready to discuss that.

General VESSEY. They will be.

Chairman GOLDWATER. I want to thank both of you gentlemen. It has been a long productive morning. Some of the Members have additional questions which you may submit the answers to.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR BARRY GOLDWATER

STRATEGIC VERSUS CONVENTIONAL FORCES

Senator GOLDWATER. Last year you indicated that the Chiefs and all the Commanders in Chief (CINCs) considered the modernization of our strategic deterrent as their number one priority, and that the strategic share of the budget reflected a proper balance. What can you say abut the FY 1986 budget with regard to the balance of funding for strategic and conventional forces?

General VESSEY. Our strategic nuclear deterrent is the umbrella under which all our deterrent forces operate. The JCS participated in the formulation of this budget. The JCS are satisfied that the balance of funds distributed between strategic and conventional forces is the funding necessary to improve our ability to meet the threat and continue to deter.

STRATEGIC DEFENSE INITIATIVE (SDI)

Senator GOLDWATER. What priority do the Joint Chiefs attach to the Strategic Defense Initiative, and how would you envision that strategic defense fits into our doctrine of deterrence?

General VESSEY. The Joint Chiefs of Staff fully support the Strategic Defense Initiative Program. The research being conducted within the program is necessary to provide the basis for critical decisions regarding U.S. national security in the 1990s and beyond.

SDI does not change the U.S. commitment to deterrence. If a decision to adopt a ballistic missile defense system is made as a result of the ADI program research, deterrence will continue to be the fundamental policy of the United States. An effective strategic defense system strengthens deterrence and can move the balance of power from a system dominated by offensive systems to one in which defensive systems play a large part.

Ongoing Soviet actions are undermining the basis of today's system of deterrence. Through the development of active and passive defensive forces and newer, more accurate offensive missiles the Soviet Union is better able to counter U.S. retaliatory forces and to jeopardize the survivability of U.S. offensive forces and vital command nodes. By fielding a strategic defense system which negates an enemy's offensive power, the price of aggression is raised and deterrence is greatly strengthened. Having achieved a more stable basis of deterrence, resting on both defensive and offensive strategic forces, we provide new and more compelling incentives to the Soviets to negotiate reductions in nuclear arsenals, which will be another helpful step towards stability and enhanced deterrence.

ADEQUACY OF THE CURRENT CHEMICAL RETALIATORY STOCKPILE

Senator GOLDWATER. Secretary Weinberger: You have been quoted as saying that our current stockpile of chemical weapons is adeqate. Did you say this, and do you believe that it is adequate to deter chemical war today?

Secretary WEINBERGER. I have never said that our chemical retaliatory stockpile is adequate. I have said that the number of binary munitions required for a modernized United States capability is about equal to (and in fact fewer than) the number of obsolescent munitions which we currently have. This has been misquoted, and I wish the record to be set straight.

Our current stockpile does not provide our military commander the retaliatory capability required to deter chemical warfare. That lack invites enemy initiation of chemical warfare in a conflict, and indeed, decreases our deterrence of war itself by negating our conventional force improvements. The modernized, safe stockpile of binary munitions we propose will provide a militarily useful retaliatory capability, which, although smaller, is more credible.

QUESTION SUBMITTED BY SENATOR STROM THURMOND

ENLISTMENT OF ALIENS

Senator **THURMOND**. What is the DOD position on the legislation recently introduced to permit the enlistment of a limited number of aliens in the Army?

Secretary **WEINBERGER**. The Department of Defense position is currently under review.

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

START

Senator **WARNER**. In forwarding his report to the Congress on Soviet noncompliance with arms control agreements, President Reagan indicated that the administration is taking into account in our defense modernization plans the security implications of arms control violations. Mr. Secretary could you indicate where this is included in the fiscal year 1986 budget request?

Secretary **WEINBERGER**. The detailed planning for the entire strategic modernization program takes into account present Soviet capabilities as well as our projections of future Soviet activities in both offensive and defensive weapons. Our projections include the possibilities inherent in various levels of Soviet arms control violations. We must not put ourselves in a situation in which the Soviets can gain a decisive advantage through violation or circumvention of agreements. We are now looking at the implications of Soviet violations of the ABM Treaty and military hedges against the prospect of an overt or covert Soviet breakout from this Treaty.

Senator **WARNER**. In view of the expanding pattern of Soviet treaty violations, has the Department of Defense considered any methods by which to enforce Soviet compliance with future arms agreements?

Secretary **WEINBERGER**. There is no way to enforce compliance of agreements between sovereign nations. We can bring the Soviet compliance record before the court of public opinion in the world, as we have done in the President's Report to the Congress on Soviet Noncompliance with Arms Control Agreements. To enhance the impact of world opinion on Soviet compliance and to guard against covert noncompliance, we must assure that all future arms control agreements are effectively verifiable. We must also be precise in defining the obligations assumed under future agreements, since the Soviets have proven to be adept at exploitating ambiguities in disregard of the spirit of the agreement.

The Soviet Union will comply with treaties only to the extent that they deem such compliance to be in their interest. They will comply with treaties if in the absence of compliance they expect something worse. The Soviet arms control compliance record must be taken fully into account when we formulate future arms control proposals. We must, if we are not to face an expanding pattern of Soviet violations, see to it that such violations carry costs at least equal to the gains they could derive from them. We must prevent a double standard of compliance in which the Soviets benefit from noncompliance and we impose upon ourselves a much higher level of compliance. We must create penalties for Soviet arms control violations.

Senator **WARNER**. How effective has the Standing Consultative Commission been in resolving our concerns about Soviet compliance with their treaty obligations?

Secretary **WEINBERGER**. The Standing Consultative Commission has been largely unsuccessful over the years in resolving compliance concerns. The SCC is not a judicial commission. It does not make decisions, and it cannot order the Soviet Union to comply with arms control agreements. It is merely a negotiating forum. The problem is Soviet unwillingness to live up to the obligations that they have undertaken, not SCC effectiveness. The fact is that serious compliance problems have generally not been resolved by the SCC or in any other manner.

Senator Warner. What would be the impact to our negotiating efforts if the Congress made significant adjustments to the Strategic Force Modernization Program?

Secretary Weinberger. It is vital to the success of our negotiating efforts that the Congress continue to support the modernization program. If the U.S. were not prepared to take the steps which are necessary to reestablish the strategic balance, the Soviet Union would have little incentive to negotiate an equitable arms reduction agreement that enhanced strategic stability at lower levels of forces.

There is such vigorous strategic force growth on the Soviet side, that it is in our security interest to approve the full modernization program under any circumstances, but to reduce that program in the aftermath of the President's findings on Soviet arms control violations would send an utterly wrong signal. It could only encourage further violations and raise questions about how serious we regard the threat to our own security. It would also reward the Soviets for their intransigence at the negotiations and encourage them to make no movement, in the hope that the U.S. would take other unilateral actions to tip the strategic balance in favor of the Soviet Union.

ADVANTAGES OF COMPETITION

Senator Warner. Secretary Weinberger: You have previously cited the advantages of competition as one aspect of the two bomber modernization program. Does the fact that there is no funding for the B-1B beyond 100 aircraft indicate that continued competition from the B-1B is unnecessary to control costs of the Advanced Technology Bomber?

Secretary Weinberger. No funding for the B-1B beyond 100 aircraft has been requested because the B-1B program was structured to address the vital near term strategic needs. Competition between the B-1B program and the ATB program has been a positive factor in restraining costs in both programs. Costs can also be influenced by other methods including multiyear contracting and good program management. These factors will control costs in the ATB program, and allow us to fulfill our far term needs by exploiting the advantages of low observables technology.

C^3 INTEROPERABILITY

Senator Warner. How confident are you that the steps you have taken will resolve the problems of C^3 interoperability?

Secretary Weinberger. I am pleased to know that this committee shares our concern for joint and combined tactical C^3 interoperability. As you know, improving our C^3 capabilities is one of my top priorities. I am extremely confident that the steps we have taken to date are the correct ones to begin resolving the problems of joint and combined tactical C^3 interoperability. The Joint Tactical Command, Control and Communications Agency (JTC^{3}A) is brand new, small in size and facing enormously challenging technical problems. We need such an Agency. It has a timely and vital role in the integration of our architectual development efforts and provides strong technical direction and management focus for the resolution of interoperability issues.

We have taken other steps to meet the challenge of fulfilling C^3 requirements, including interoperability, with limited resources. Some time ago we recognized the need for close coordination between the Office of the Secretary of Defense (OSD), the Organization of the Joint Chiefs of Staff (OJCS) and the Services for timely resolution of C^3 issues. We established three management bodies to effect that coordination: the C^3 Executive Committee (EXCOM—consisting of the Deputy Secretary of Defense and Chairman of the Joint Chiefs of Staff) makes recommendations to the Defense Resources Board on the allocation of resources to C^3 programs; and the C^3 Review Council (chaired by the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD(C^{3}I)) and including senior C^3 OJCS and Service members) is the primary support arm of the EXCOM for C^3 matters; and, at the functional level, eight panels, chaired by senior military officers, assist the C^3 Review Council in specific functional areas.

The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) program, taken over by the new JTC^{3}A, has made significant progress in developing message text formats (MTFs) (human and machine readable) and bit-oriented formats (machine readable for computer-to-computer use). The MTFs will undergo operational effectiveness demonstration (OED) this year. Providing standard, machine readable formats contributes to interoperability by allowing automated processing of real-time critical data elements that have joint standard definitions. A strong testing and configuration management program is taking shape to ensure adherence to the approved standards.

The Agency will now build on the efforts of those who preceded them. The Department plans to make full use of the Agency. We have given it our full support. As it matures, we will continually review its progress and the operational relationships and authority we initially established. That process will identify any requirements for fine tuning to improve continuing efforts to resolve complex, C^3 interoperability problems.

Senator **Warner**. Do you think the Joint Tactical C^3 Agency has enough support within your Department to accomplish its mission?

Secretary **Weinberger**. I believe OSD is providing adequate support to the Agency. There is complete agreement within DOD on the need for the Agency and its overall mission. However, it has to be recognized they walk a difficult path and we have limited resources. To stay within existing resources, the Agency was formed from existing organizaitons with existing missions and resources rather than creating a totally new organization. Because of that, this young Agency's workforce is still oriented to a great degree on its previous TRI-TAC and JINTACCS programs. A significant portion of the workforce is still detailed to testing at the Joint Test Element (supporting TRI-TAC), Fort Huachuca, Arizona, and the Joint Interface Test Facility (supporting JINTACCS), Fort Monmouth, New Jersey. This requirement plus the TRI-TAC and JINTACCS oriented personnel baseline rather than a broader C^3 baseline, makes it difficult to move immediately toward accomplishment of the Agency's new charter. A transition period to adjust personnel staffing and activities to the new mission will be required.

Establishment of a new DOD level activity always requires careful review and followup to ensure that the new organization is in fact accomplishing the desired goals. We in the Department intend to continuously review the personnel and dollar resources necessary for the Agency. We will provide the highest level of management attention and support to ensure that the Agency is successful and fully accepted in its role and that we are gaining and maintaining control of interoperability.

Senator **Warner**. The Agency appears to have insufficient authority to enforce the standards it develops. What mechanism are you establishing to enforce those standards once they are approved?

Secretary **Weinberger**. We have given the Agency the technical job of developing the interface standards for C^3 systems used in joint tactical operations and to represent us in developing such standards for combined operations. In support of periodic program and budget reviews for the Organization of the Joint Chiefs of Staff (OJCS) and the Office of the Secretary of Defense (OSD), the Agency will also verify whether the military Services implement those standards as they develop and program new C^3 systems. The JCS are charged to ensure compliance of DOD components with the approved tactical C^3 standards and the architecture that will form the basis for them. The final mechanism to enforce the standards is based on the authority to approve or disapprove the Service programs. We retain that authority within OSD.

Senator **Warner**. The Agency receives guidance and direction from two masters, the Assistent Secretary for Command, Control, Communications and Intelligence in the Office of the Secretary of Defense and the Director for Command, Control and Communications Systems in the Organization of the Joint Chiefs of Staff. What steps are you taking to avoid the conflicts and delays that such an arrangement might cause?

Secretary **Weinberger**. Both the Joint Chiefs of Staff (JCS) and the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD(C^3I)) have authorities and responsibilities in regard to the Agency which follow from their respective statutory and organizational responsibilities. These do not overlap nor is this arrangement unique to the Joint Tactical Command, Control, and Communications Agency (JTC^{3}A). Similar arrangements exist to some degree for the Defense Communications Agency (DCA), the National Security agency (NSA) and others. Our challenge is to assure that the lines of responsibility are clear and no one oversteps their boundaries. In practice, that is not easy and requires all concerned to work the problem together. There is naturally a close working relationship between the ASD(C^3I) and the Director for Command, Control and Communications Systems, OJCS. I have asked them both to coordinate closely in order to provide coherent guidance and direction to the Agency. Toward that end, they have adopted and co-signed a memorandum of understanding to jointly coordinate all taskings to the Agency.

RESEARCH AND DEVELOPMENT SPENDING

Senator WARNER. Can you describe any efforts or ongoing examples of such and indicate any savings that might be generated?

Secretary WEINBERGER. The DOD has no program or activity established to use reverse engineering techniques to exploit foreign technologies in a covert manner.

PERSONNEL COSTS, ACTIVE/RESERVE FORCE MIX

Senator WARNER. Mr. Secretary, do you agree that we must gain control over this continuing growth in active force structure, how do you propose to do it, and when can we expect to see it level off?

Secretary WEINBERGER. First of all, I believe we have control of our active duty force structure and that the growth we have experienced over the last several years and are asking for now is fully warranted. The basic policy of the Department is to maintain as small an active peacetime force as national security policy, our military strategy and overseas commitments permit. Missions not requiring active forces are assigned to the reserves, perfomred by DOD civilians or contracted to the private sector. As you know, each of the services has quite sound and rational methods for developing their force structure requirements and determining the minimum manning necessary to support their structures. The increases that we have asked for in fiscal year 1986 in the active component are for those missions that can only be performed by active duty personnel. For example the majority of the increase in the Navy goes to manning additonal ships that will be commissioned as we move toward our goal of a 600-ship Navy. Since these ships will be subject to lengthy deployments they must be manned by active duty personnel. The increase in the Marine Crops is primarily dictated by new types of organizations such as another light armored vehicle battalion, three more TOW antitank platoons and the transition of a second artillery regiment to the M198, 155mm towed howitzer. The Air Force increase supports programs that have already been approved by Congress such as the F-15, F-16, Ground Launched Cruise Missile, KC-10, TR-1, C-5B and B-1B. The Army has not asked for any additional end strength but is overhauling its force structure to make it more efficient. In some cases this will mean shifting missions to the reserves.

As far as the second part of your question is concerned, modest increase in end strength will continue each year through the end of this decade as we field new systems and continue to expand the Navy. Of course, we are keeping these increases to an absolute minimum by shifting manpower from older systems as these systems are phase out.

CONTRACTOR GUARANTEES/WARRANTIES

Senator WARNER. Mr. Secretary, last year we passed legislation requiring contractor guarantees or warranties on major weapon systems.

Could you comment on how the Department sees that legislation now?

Secretary WEINBERGER. We have no problems with the legislation as written and have found the fiscal year 1985 legislation to be an improvement over the fiscal year 1984 legislation. We implemented the fiscal year 1984 warranty legislation with our warranty policy guidance that was issued on March 14, 1984. The fiscal year 1984 policy stayed in effect until our interim policy guidance which implements the new fiscal year 1985 law became effective January 1, 1985. At the same time we issued our interim policy to our field activities we published the policy in the Federal Register and are asking for comments over a 60-day period which will conclude on March 4, 1985.

The issuance of this interim policy has allwed the Department to implement the fiscal year 1985 legislation immediately while we receive comments from the public and interested committees of the legislative branch.

We will review the comments and make changes to our policy guidance where appropriate and plan to release our final warranty policy guidance as a Defense Acquisition Regulation Supplement to the Federal Acquisition Regulations (FAR) early this spring.

Senator WARNER. What are the advantages and disadvantages that have been realized from implementing the new 1985 warranty legislation?

Secretary WEINBERGER. We have not encountered any significant problems to date but it is really too early to determine the advantages and disadvantages realized from implementing the new warranty legislation. We are applying cost effective warranties to mature weapon system production contracts. Generally, delivery of equipment resulting from an fiscal year 1985 buy will not be realized for 20-30 months due to lead times in the manufacturing process. Therefore, until we actually accept these weapon systems in 2 to 3 years, field them, and get some operational experience as well as some experience administering warranties where we may not have had them before, we will not be in a position to evaluate the effects of the warranty legislation.

MILITARY RETIREMENT PAY/FAMILY ISSUES

Senator **WARNER**. Mr. Secretary, there continues to be a considerable amount of discussion regarding changes in the military retirement system.

As you know, I am a strong supporter of maintaining the current system pretty much as it is and see attempts to change it for those currently covered or on active duty as "breach of contract."

It also seems to me that this continuing discussion in the media creates a considerable amount of unrest among our servicemen and their families.

Would you please give me your views on the military retirement system?

Secretary **WEINBERGER**. Military retirement is a fundamental pillar of military compensation. It operates with the other elements of military compensation and personnel policy to shape a youthful, vigorous, and ready force. Thus, it is unavoidable that any reduction in military retirement benefits without a corresponding change elsewhere would have a detrimental effect on readiness.

The adage that you "get what you pay for" is clearly borne out by the improvements in military manpower readiness over the last four years. In the late 1970s, the military services were struggling to recruit and retain personnel in the quantity and quality required. There was a hemorrhage of talent resulting in a hollow Army, insufficient petty officers to man our ships, and a loss in pilots that jeopardized our ability to fly and fight. These problems have been largely solved through improved, competitive compensation that has made staying in the military once again a viable employment alternative.

The manpower situation which this Administration inherited would have been even worse had it not been for the fact that those who stayed in the Services perceived the stability of the military retirement system as the "light at the end of the tunnel," the pressure release valve that made personal and family hardships bearable. As we approach full recovery in our manpower readiness, we must make sure we do not reverse course by eroding the very foundation upon which this recovery is based. To do so would be to throw away the crucial investments we have made over the last four years.

Unlike civilian plans, the military retirement system is not an old-age pension plan. In form and structure, it contains none of the features commonly found in old-age income maintenance plans. There are no vesting, no capital accumulation, no deferred income, and no supplemental thrift provisions. It does not look, or operate, like a pension plan because its purpose—to sustain military readiness—requires it to provide a level of compensation that will ensure an orderly flow of officers and enlisted personnel through the ranks of an essentially closed system, and concurrently provide retainer pay for retired members that the Supreme Court has characterized as "reduced pay for reduced levels of military service." With respect to this latter point, our mobilization contingency plans include the recall of about 61 percent of retirees, thousands of whom already have their recall orders in hand.

Even harsh critics of the military retirement system, including the Grace Commission, have concluded that military retirement should be better than private sector pension plans because of the unique nature of military service and therefore cost more. Analyzed in terms of a percentage of pay, the military retirement system costs only 1.2 to 1.5 times more than the average private sector plan. It is unfortunate that erroneous assertions, such as the one made by the Grace Commission that the military retirement system is six times more costly than private sector plans, are continually quoted and accepted as fact. Such pronouncements are not only misleading but create public concern, and hence potential turbulence, where stability is required.

The myth of an unnecessarily generous, uncontrolled military retirement system is perpetuated by well-publicized, though ill-informed, attacks. The reality is that the present value of future benefits for military retirees has decreased by 15–20 percent as a result of a combination of actions taken over the past four years, such as reduced COLA and high-three-year averaging for retirement computation. It is not surprising that those responsibile for our national security are concerned with the readiness impacts of proposals for further reductions. The reality is that the military retired population, once rapidly growing, has stabilized and so have related costs. Last year we implemented new retirement funding methods. The retirement cost of those entering the service today is now paid up front as part of our military personnel budget, and retirees are paid from an interest-bearing fund established in the Department of the Treasury. The reality is that the system is under control.

Military retirement benefits are not lavish. Over 48 percent of current retirees draw annuities below the poverty level for a family size of four. To supplement this income, they must work. When they do, they initially tend to earn 20 to 27 percent less than similarly educated workers in the civilian community who have had the benefit of a stable career. Although this gap narrows over time, it is never made up, and lifetime losses amount to over 20 percent on the average.

Retired pay does not amount to 50 percent of total military compensation at 20 years, as frequently claimed, but actually amounts to only 35 percent. This is not an inordinate amount when you consider that retirees are subject to recall to active duty, restricted by law in their post-service employment opportunities, and continue to be subject to the Uniform Code of Military Justice. That these restrictions are on top of the sacrifices in personal liberties required of our men and women in uniform, the often arduous nature of military duties, the frequent moves which are not fully reimbursed, and the inherent risk to life of those in uniform clearly justifies a stable military retirement system.

In summary, the military retirement system is a basic element of compensation upon which we build and maintain the strong and vital military force we need to honor our international commitments. It is not overly generous. The military services must work hard to recruit and retain the types of people they need. At the present time there is no glut of volunteers, nor are the ranks bursting with an overabundance of talent. It is not overly expensive. The relative value of the current system is less than it was four years ago, the population of retirees and their related costs have stabilized, and the cost of future retirees is funded on an accrual basis in our current Defense budget. If the American people value the military readiness brought about by high-quality people, the dollars invested in the military retirement system are a fair exchange for that guarantee.

QUALITY OF LIFE

Senator **WARNER**. Also, what "quality of life" or family-oriented issues do you regard as top priorities this year?

Secretary **WEINBERGER**. Increase OSD's leadership role in family support programs through the newly created Family Office under my Assistant Secretary of Defense for Manpower. Provide adequate government furnished housing (on base and leased) for more of our personnel, both single and married. Assist our people who are now losing money when being reassigned. Specifically, improve travel allowances and per diem for family members, increase weight allowances for government shipment of household goods, and provide reimbursement for temporary lodging expenses. Increase capacity to provide on-base child care. Satisfy more of the medical and dental care needs of family members. Increase employment opportunities for military spouses.

STRATEGIC VERSUS CONVENTIONAL PROGRAMS

Senator **WARNER**. General Vessey, despite the strategic modernization program, your posture statement shows balance trends that do not favor the United States or even indicate strategic parity. What, in your judgment are the military implications of these trends?

General **VESSEY**. Militarily, these trends are one indication that the President's modernization program must be fully implemented to reverse the increasing level of risk associated with the imbalance in United States and Soviet force capabilities, particularly in near-term, time-urgent, and hard-target strike potential. However, the static comparisons shown in the charts are not the sole measure of the strategic balance. While I would prefer that these indicators were in better balance, our modernization programs are carefully structured based on national military priorities, and should reduce disparities in capability and improve stability. Additionally, the President's arms reduction efforts and Strategic Defense Initiative are designed to enhance stability further.

It is not necessary to match the Soviet forces man for man or weapon for weapon. Rather, we achieve our objective of a credible deterrent force through a combination of many factors, including training, tactics, arms control, and offensive and defensive weapon system quantity and quality. We believe we do have a credible deterrent and that the strategic modernization program will enable us to sustain it.

Senator **WARNER**. Last week, in its report to the Congress on Soviet treaty violations, the administration concluded that "the USSR may be preparing an ABM defense of its national territory." What are the implications of this unilateral Soviet deployment of a nationwide defense for our ability to deter nuclear war effectively?

General **Vessey**. [Deleted.]

EFFECTIVE DEFENSES

Senator **Warner**. In connection with the SDI, would strategic defenses contribute to the deterrence of nuclear war even if they were less than 100% effective?

Secretary **Weinberger**. Yes. To enhance deterrence, a defense system must be able to reduce the military utility of nuclear weapons. An effective defenses against ballistic missiles can enhance deterrence and stability by denying an aggressor confidence in his ability to predict a successful attack outcome and by reducing or eliminating the utility of preemptive attacks on retaliatory forces. In the unlikely event, due to irrationality or accident that such nuclear weapons were used, effective defenses could also make a major contribution to saving lives and limiting damage.

BINARY CHEMICAL MODERNIZATION

Senator **Warner**. What priority do you attach to the binary chemical modernization program this year?

Secretary **Weinberger**. The binary chemical modernization program is among the highest priority programs in this year's budget. The program enjoys this high priority due to the critical need to redress a serious deficiency in our military capability to support national policy. Our policy of chemical deterrence is sound and humane. We do not want to fight a chemical conflict and we fully support our obligations under the 1925 Geneva Protocol. The Soviets are universally acknowledged as having the world's largest and best chemical capabilities—both offensive and defensive. They address chemical warfare in all key areas of military preparedness including doctrine, offensive and defensive training, defensive systems and equipment, a large chemical production base, and a large agent stockpile to include agent weaponization. This program is supported by a dedicated force structure that is many times larger than that of the United States. In a high intensity conflict chemical weapons can have a significant impact on the battlefield. Another disturbing aspect is that this capability is supported by an expanding research and development program. With total disregard for their obligations in treaty and customary international law, the Soviets have used this chemical capability in Afghanistan and supported chemical warfare by their client states in Southeast Asia.

The 1986 budget also requests funds to improve our chemical defense capabilities. In fact, about 70 percent of the "chemical budget" is for defense. While improved chemical defense is vital, a defense posture alone will not deter chemical warfare. An aggressor must understand that he may be subject to similar force degradation if he initiates chemical warfare. If we have that capability and the enemy knows it, he will be deterred.

The current U.S. chemical retaliatory capability has several shortcomings which limit its deterrent and battlefield utility. As we have said before, the current useful US chemical stockpile is very small, and does not meet the needs of our unified commanders. Further, the weapons which make up that stockpile do not support the requirements of the modern battlefield. We have 1950 and 1960 vintage weapons to support the battlefield of the 1980s and 1990s. Our current weapons, for the most part, have the wrong agents and most importantly do not provide an effective means of attacking deep targets.

The binary modernization program is designed to redress these deficiencies. Further, it improves safety and, coupled with the chemical demilitarization program, reduces the overall size of the stockpile. More importantly, modernization provides a credible retaliatory capability which is paramount to support our policy of deterrence. Modernization also has the potential to support our aggressive chemical arms control efforts. Our ultimate objective remains a complete and verifiable ban on chemical weapons and modernization may provide the incentive for the Soviets to seriously pursue this goal.

PRIORITY OF THE BINARY CHEMICAL MODERNIZATION PROGRAM

Senator **Warner**. General Vessey, would you tell us what priority you attach to the binary chemical modernization program this year?

General **Vessey**. The lack of a militarily effective chemical retaliatory capability means that we do not have a credible chemical warfare deterrent. This lack negates our conventional force improvements. This not only invites chemical warfare in a conflict, but decreases our capability to deter war itself by placing greater reliance upon our threat of initiating nuclear warfare. The seriousness of the implications of this deficiency to our overall strategy of deterrence places the need to reestablish a credible chemical retaliatory capability as a highest priority defense program.

The absence of a militarily effective chemical retaliatory capability also means that the Soviets have no incentive to conclude a chemical arms ban. As the former Soviet official Shevchenko (who defected in 1978) has just published, the Soviets see no reason to sincerely seek a ban for they have an increasingly overwhelming advantage in chemical warfare capabilities.

As the President certified to Congress in 1982, modernization of the chemical retaliatory stockpile by production of binary chemical munitions is essential to the national interest.

FOUR SSN-688 CLASS ATTACK SUBMARINES

Senator WARNER. Mr. Secretary, last year you recommended four (4) SSN-688 class attack submarines in the original budget request. Because of fiscal constraints, this number was reduced to three. Nevertheless, Congress approved four in the authorization and the appropriation bills for fiscal year 1985. Is there a valid military requirement for four SSN-688 class submarines in fiscal year 1986?

Secretary WEINBERGER. There is a valid requirement for the four SSN-688 class submarines in the fiscal year 1986 budget. In terms of defense preparedness, we cannot afford to deviate from our goal of 100 nuclear attack submarines. The four SSNs in fiscal year 1986 ensure that we can sustain a force level of 100 SSNs through the 1990s. Each of the 100 SSNs in the force is necessary to meet the projected Soviet threat. We consider the force of 100 essential to ensure that our Navy can execute the U.S. Maritime Strategy with reasonable assurance of prevailing in a conflict with the Soviets.

Our force of nuclear attack submarines must incorporate the military capabilities to preserve a qualitative advantage over highly capable attack submarines that the Soviets are building. The improved SSN-688 class submarines requested in fiscal year 1986 are much quieter, better armed, and more mission capable than SSN-688 class ships operating today. Each one of the ships adds far more capability to the submarine force than present in the thirty-year-old submarine it replaces. This modernization provides a force multiplier effect vital in terms of our ability to execute a forward naval strategy. By the end of the century the attack submarine force will consist primarily of SSN-688 class submarines. The submarine force will draw on the increased capabilities we build into each SSN-688 class submarine to maintain our undersea superiority.

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

READINESS REPORTING

Senator NUNN. Secretary Weinberger, I understand that in April of last year you established a task force including representatives from OSD, DLA, and each of the Military Services to develop a more realistic and meaningful assessment of readiness trends. What progress has this task force made?

Secretary WEINBERGER. As a first order of business, the task force focused on reviewing the Unit Status and Identity Reporting—or UNITREP—system. The task force has developed a set of proposed changes to UNITREP. I will shortly review these proposals. The Organization of the Joint Chiefs of Staff also is reviewing them formally. Although we may be able to improve UNITREP and make its output marginally more useful, it is doubtful that any single system can ever capture all the complexities of combat readiness.

Moving beyond UNITREP, we are continuing to seek better ways to quantify and aggregate trends in each of the four "pillars" of combat capability: force structure, modernization, readiness and sustainability.

MUNITIONS

Secretary NUNN. Secretary Weinberger, last year your staff provided funding information on War Reserve Munitions in the fiscal year 1985–1989 FYDP. This information showed munitions funding by service and by category (i.e., level of effort or threat-oriented).

Please provide for the record a similar chart showing war reserve munitions funding by service and category for the fiscal 1986–1990 FYDP.

Secretary **Weinberger**:

WAR RESERVE MUNITIONS

[Dollars in billions]

	Fiscal year—					Total
	1986	1987	1988	1989	1990	
Army:						
Level-of-effort	2.2	2.4	3.2	3.2	3.6	14.6
Threat	.7	.9	1.1	1.2	1.3	5.2
Total	2.9	3.3	4.3	4.4	4.9	19.8
Navy:						
Level-of-effort	1.0	1.3	1.7	1.9	1.7	7.6
Threat	3.0	3.1	4.4	5.0	6.2	21.7
Total	4.0	4.4	6.1	6.9	7.9	29.3
Marine Corps [1]						
Level-of-effort	.4	.5	.9	.9	1.2	3.9
Threat	.2	.3	.3	.4	.4	1.6
Total	.6	.8	1.2	1.3	1.6	5.5
Air Force:						
Level-of-effort	1.8	2.5	3.0	3.6	3.5	14.4
Threat	.9	1.4	1.5	1.1	.9	5.8
Total	2.7	3.9	4.5	4.7	4.4	20.2
DOD totals:						
Level-of-effort	5.4	6.7	8.8	9.6	10.0	40.5
Threat	4.8	5.7	7.3	7.7	8.8	34.3
Total	10.2	12.4	16.1	17.3	18.8	74.8

[1] Ground-launched munitions only. Marine Corps air munitions are included in Navy amounts.

Senator **Nunn**. Secretary Weinberger, in response to a series of questions on munitions funding last year, you indicated that about 70 percent of the annual munitions buy is eventually applied against NATO requirements.

Is this 70 percent still valid for the fiscal year 1986–1990 FYDP?

Secretary **Weinberger**. Yes, a rough planning figure is that about 70 percent of the munitions procurement is eventually applied against NATO requirements.

NATO CONVENTIONAL DEFENSE

Senator **Nunn**. Secretary Weinberger, what specific progress has the NATO Alliance made in the last year in improving the conventional capability of the Alliance?

Secretary **Weinberger**. NATO made progress in improving its conventional defense capability in 1984 in two main areas, those of national force modernization and advances in NATO supporting programs. With regard to national forces, new naval vessels commissioned included one cruiser, one destroyer, 13 frigates, eight submarines, four patrol boats and seven mine-countermeasures vessels. Introduction of new aircraft continued; these included Tornado, CF-18, F-16 and F-15. Land forces modernization included continued introduction of Leopard II, M-1 and Challenger tanks and improved artillery systems. Progress in NATO supporting systems included activation of the common-funded and jointly owned and crewed NATO Airborne Early Warning (NAEW) fleet. Progress was also made in Host Nation Support arrangements and in further development of the Emerging Technologies program. Finally, a major decision increasing infrastructure funding was taken.

Senator **Nunn**. Secretary Weinberger, the agreements announced at the NATO Ministerial Meeting last December are encouraging.

What concrete actions have been forthcoming by the NATO countries to carry out the agreements announced at the December NATO Ministerial Meeting?

What specific actions have been taken to increase munitions sustainability stocks among our NATO allies?

What specific steps have been taken to provide aircraft shelters at European operating bases for U.S. aircraft that are scheduled to deploy to Europe in a NATO mobilization?

Secretary **Weinberger**. Implementation by NATO countries of the agreements announced at the December 1984 NATO Ministerial Meeting will be reflected in the national force and financial plans for 1986–1990, which will be submitted to NATO at the end of July 1985. With regard to munitions sustainability stocks, Defense Ministers agreed to review national plans to give special emphasis to correcting shortfalls in critical munitions, as described by the NATO Military Authorities and to continue their efforts to reach [deleted] levels for all munitions; first steps will be reported in national force plans being submitted to NATO this summer. The provision of additional aircraft shelters for U.S. aircraft that are scheduled to deploy to Europe in a mobilization is being carried out under NATO Infrastructure procedures, under which aircraft shelters now enjoy a substantially higher priority.

NATO IDENTIFICATION SYSTEM

Senator **Nunn**. Secretary Weinberger, what progress is being made in developing and acquiring a common IFF system for NATO aircraft?

When will NATO make a decision on this important question?

How long will it be before such a system is operational?

Secretary **Weinberger**. As you are fully aware, the lack of a common, secure, jam resistant, interoperable identification system is NATO's most serious air defense deficiency. In December 1984, the French, the United Kingdom, the Germans, and the U.S. completed a cooperative test program in an effort to resolve issues involving operational requirements and frequency allocation. Our test results have revealed that the proposed U.S. Mark XV system meets or exceeds NATO requirements while, at the same time, not adding to already present frequency allocation problems in Europe. Informal talks with our colleagues in France and the UK have led to the understanding that their test results demonstrated a similar conclusion. Unfortunately, the German test results are diametrically opposed to ours. We and the allies are now discussing the details of test results.

Because of the difficulties spelled out above, I do not anticipate an early decision on a NATO NIS. In essence, the problem is not a NATO decision but rather a national one, with Germany being the principal holdout. I should point out, however, that regardless of a decision on a NATO identification system, the U.S. must continue with the Mark XV because our own civil and military needs so dictate.

This program has been delayed for more than two years as we attempted to negotiate a resolution to NIS in NATO. Finally, in fiscal year 1984, I directed that the US, regardless of the NATO decision, would move forward with the Mark XV; we so informed our allies. In an effort to make the Mark XV system more acceptable to our allies, we agreed to a compromise position, at some considerable cost to ourselves, whereby we would incorporate a radar interrogation mode into our system design. The radar mode features had been sought by the Germans and the UK. We also agreed to cooperate in the 18-month test to determine suitability of the Mark XV system. I expect that it will reach initial operational capability (IOC) in 1992.

EUROPEAN TROOP STRENGTHS

Senator **Nunn**. Secretary Weinberger, does the fiscal 1986 budget include any increases in the number of U.S. troops stationed in Western Europe?

What is the request?

Secretary **Weinberger**. We plan to station 326,414 U.S. military personnel in Europe at the end of fiscal year 1986. This level is the same as the troop ceiling and our initial planned strength for end of fiscal year 1985. (The planned strength for end of fiscal year 1985 was later revised downward by approximately 600.) In addition, the planned fiscal year 1986 end-strength is at least 3,500 below what CINCEUR recommended to meet the threat. I would like to stress that DOD remains firmly opposed to the permanent ceiling on our European troop strengths and is seeking the repeal of this ceiling. As I have stated on many occasions, we face today a growing Soviet threat in Europe. Both we and the allies have agreed, in the fact of this growing threat, to make every effort to improve NATO's defenses. Recent progress at the NATO ministerials attests to this common commitment. In order to uphold our part of this commitment, DOD must have the flexibility to adjust its troop strengths as the situations requires.

CHEMICAL WARFARE DETERRENCE

Senator **Nunn**. Secretary Weinberger, last year Congress failed again to approve the administration's request for production of binary chemical weapons.

What is your program this year for retaliatory chemical weapons and how important is this for deterrence?

Secretary WEINBERGER. The lack of a militarily effective chemical retaliatory capability means that we do not have a credible chemical warfare deterrent. This lack negates our conventional force improvements. This not only invites chemical warfare in the event of war, but decreases our capability to deter war itself by placing greater reliance upon our threat of initiating nuclear warfare. The seriousness of the implications of this deficiency to our overall strategy of deterrence places the need to reestablish a credible chemical retaliatory capability as a highest priority defense program.

The proposed fiscal year 1986 binary modernization program would provide $109 million for facilities ($11 million for initiating construction and $98 million for procurement of facility equipment) for production of the BIGEYE binary bomb, $43.7 million for production of BIGEYE binary bombs, and $21.7 million for production of 155mm binary artillery projectiles. These program funds are the minimum necessary to allow the earliest possible initial production of these munitions, resulting in finished munitions in two (155 projectile) to three (BIGEYE bomb) years.

We also are continuing R&D with $33 million requested on retaliatory systems, the majority of which is desired for the MLRS binary chemical rocket.

MANAGEMENT HEADQUARTERS MANNING

Senator NUNN. Secretary Weinberger, for the record, indicate the level of management headquarters and management headquarters support personnel originally requested in fiscal year 1985; the level after the two percent reduction was applied; and the current estimate for fiscal year 1985.

Secretary WEINBERGER. The Department applied a 2 percent reduction in management headquarters staffing mandated by the fiscal year 1985 DoD Authorization Act 9(P.L. 98-525) to management headquarters activities. Provided below is a table of management headquarters staffing levels (civilian and military) for fiscal year 1985.

MANAGEMENT HEADQUARTERS END STRENGTH

Component	Original fiscal year 1985 request	Level after 2 percent reduction	Current fiscal year 1985 estimate
Army	24,540	24,057	24,057
Navy	20,809	20,400	20,400
Air Force	26,163	25,651	25,651
(Defense Agencies)	(4,738)	(4,662)	(4,662)
OSD	1,768	1,730	[1] 1,765
DIS	183	185	185
DMA	171	171	171
DNA	249	229	229
DCA	269	253	263
DLA	840	840	840
DAVA	72	62	62
AFIS	22	28	28
WHS	523	495	495
DCAA	108	108	108
DoDDS	100	100	100
DLS	55	35	35
OIG	80	80	80
DARPA	163	163	163
DSAA	135	138	138
Total	[2] 76,250	74,735	74,770

[1] As part of its management headquarters reduction, the Congress limited the size of the Office of the Secretary of Defense to 1,730 personnel in fiscal year 1985. However, it also authorized the Secretary to exceed that limitation by two percent (35 personnel) if he determined such action to be in the national interest. On December 4, 1984, the Chairmen of the Armed Services Committees were notified that current and past OSD manpower constraints were impacting adversely on the accomplishment of U.S. national security objectives and, therefore, OSD is being increased by 35 personnel (to 1,765), as permitted by the Congress.

[2] Includes certain intelligence related activities which are exempt from the reduction.

Senator NUNN. Is there any growth requested in fiscal year 1986 in the management headquarters and management headquarters support functions in the military services and OSD? What is the reason for the growth?

Secretary **WEINBERGER**. After the 2% reduction, the fiscal year 1985 estimate of management headquarters staffing is 74,770 [1] end strength. The fiscal year 1986 estimate as shown in the fiscal year 1986 President's budget is 75,285 [1] end strength. Therefore, very little growth is anticipated in fiscal year 1986 for Management Headquarters activities (7/10 of 1%). Slight increases in the military services are due primarily to the establishment of the U.S. Central Command. Increases in OSD are also minimal but necessary to ensure efficient and effective management of DoD resources. Effective management of an organization as large and diverse as the Department of Defense is a major task with a staff of 1,765 employees. In addition, OSD remains less than one-twentieth of one percent of total DOD manpower and the Department believes such factors should be considered when addressing OSD manpower issues.

INEFFICIENT AND UNSTABLE PROGRAMS

Senator **NUNN**. Mr. Secretary, your statement criticizes "the pattern of the 1970's of inefficient and unstable programs." As best we can tell, there are 92 major systems or production lines in your budget request this year.

This is 11 more programs for fiscal year 1986 than you were projecting in last year's budget for fiscal year 1986.

Of these 92 programs, you have altered the production rate of 56, or 60 percent, in the fiscal year 1986 budget compared to what you were projecting in last year's budget for fiscal year 1986.

One of the Carlucci management initiatives was to stabilize production programs.

Do you call changing the production rate of 60 percent of your programs from last year to this year a stable production program?

Secretary **WEINBERGER**. The thrust of the economic production rate initiative is centered around two objectives: (a) promoting the use of economic rates and (b) maintaining economic rates once they are achieved. Since fiscal year 1981, we have been successful in programming a five-year plan to rapidly achieve economic rates for new weapon systems. We have also been successful in maintaining production rates once achieved. In fiscal year 1986 only 10 major systems had production rates decline from the fiscal year 1985 rate. Two of these declined because fiscal year 1986 was the last year of production and no requirement existed for a full year's production. In the other 8 cases, the reduced production rate was required due to other considerations. For example, the F-14 aircraft production rate was reduced to permit plant changeover for production of the upgraded F-14D model starting in fiscal year 1988. Other rates varied for other similar reasons. With very few exceptions, we have been able to maintain the previously achieved production rates or continue to build toward more economic rates for most systems.

SAVINGS ON INCREASED PRODUCTION RATES

Senate **NUNN**. Mr. Secretary, my staff has conducted an analysis of the production rates on major systems contained in your budget request and compared them to the production rates that were forecast for fiscal year 1986 in last year's budget.

The staff analysis shows that 29 out of 92 programs have been stretched out or deferred. The same analysis shows that 16 have been increased or accelerated.

What is the cost of stretching out 29 programs, both in terms of higher unit costs and increased total program costs?

What savings can you show for increasing the production rates on the 16 systems with increased production rates?

Secretary **WEINBERGER**. There are a number of reasons why some fiscal year 1986 programs have been reduced from last year to this year. It would be misleading to indicate the change in costs for these systems without also presenting the circumstances surrounding the changes in the programs. The specific details for each system are provided below along with a summary of the data.

Your question identifies 29 systems that have been delayed from last year to this year. The Department's information indicates a total of 27 systems in quantity. Of the 27 programs whose fiscal year 1986 quantities were reduced from last year to this year, two of the programs—the Pershing II and MK 46 Torpedo—have been reduced in overall size. Hence, any unit price increase in these systems is offset by an overall savings in the program by virtue of procuring fewer units. The change is not related to a program stretchout. Of the remaining 25 systems, 10 experienced a cost reduction in fiscal year 1986 notwithstanding that the fiscal year quantity dropped from last year to this year. The experience of these systems serves to illustrate the complexity of determining the effect of reductions in quantity.

---

[1] These levels do not include the Office of the Joint Chiefs of Staff and DOD Intelligence organizations.

Of the remaining 15 systems, 3 experienced reductions either directly or indirectly as result of congressional action on the fiscal year 1985 budget. These systems have undergone a cost increase of $696.2 million in the fiscal year 1986 program; however, some of the cost increase was associated with factors other than the change in quantity. The change in quantity was associated with fiscal year 1985 congressional action.

Of the remaining 12 systems, 3 systems have experienced cost increases either unrelated or almost totally unrelated to the change in quantity. These three systems have experienced a cost increase of $204.3 million.

Three additional programs have experienced cost increases, but these programs have been reduced because of changed requirements or fact-of-life program circumstances that clearly justify a smaller fiscal year 1986 program. These systems are the Advanced Medium Range Air to Air Missile, the Ground Launched Cruise Missile, and the DIVAD gun system.

The remaining six systems have experienced cost increases totalling $145.3 million. These six systems include such programs as the F-14A, for which production is being held to a minimum pending future procurement of an advanced, modernized version of the aircraft, and the Bradley Fighting Vehicle, which has an economic production rate in fiscal year 1986 that is substantially higher then the rate approved by Congress in fiscal year 1985.

Quantities have been increased for 18 programs resulting in a net unit cost decrease for the revised fiscal year 1986 program greater than the net increase that resulted from decreased programs. The total result is a more economic Defense procurement program.

COST IMPACT OF CHANGES IN PRODUCTION RATES

[Dollar amounts in millions]

System	Quantities fiscal year 1986		Fiscal year 1986—	
	Fiscal year 1985 budget	Fiscal year 1986 budget	Unit cost change	Program cost change
Divad	144	117	+$1.3	+$155.4
Explanation: Production decrease is due to technical problems, which also impact unit cost.				
MK-19 machine gun	1,005	821	−.003	−2.5
Explanation: Production decrease did not impact unit cost. Unit cost decline is due to a refined cost estimate.				
Bradley	900	716	+.031	+22.2
Explanation: Production rate maintains steady buildup over fiscal year 1985 level.				
FAASV	230	197	−.005	−1.1
Explanation: Production rate was increased over fiscal year 1985. Unit costs continue to decline due to other factors.				
M 198 Howitzer	52	35	−.073	−2.6
Explanation: Cost changes are unrelated to the slight decrease in the production rate. The cost decrease is due to a more current cost estimate.				
Patriot	815	585	+.152	+88.9
Explanation: The Patriot program was restructured to take production of FMS units into account. As a result, the U.S. program was reduced, but the economic production rate will be maintained with FMS units. Unit cost increases are unrelated to the production rate.				
Pershing-II	(1)	(1)	(1)	+95.0
Explanation: The increased unit cost is a result of the decreased quantity budgeted. However, the total quantity required has been reduced due to operational consideration precluding the need for the full previously planned procurements. Since fiscal year 1986 is the last year of procurement, there is no program stretch out.				
Stinger	6,467	3,439	−.039	−134.1

COST IMPACT OF CHANGES IN PRODUCTION RATES—Continued

[Dollar amounts in millions]

System	Quantities fiscal year 1986		Fiscal year 1986—	
	Fiscal year 1985 budget	Fiscal year 1986 budget	Unit cost change	Program cost change
Explanation: Despite the reduced quantity, the unit cost decreased due to the decision to reflect the most likely cost rather than the ceiling cost. The ramp-up rate reflected in the budget last year was considered high risk. The program was slowed to reflect a moderate risk ramp-up rate. Although the program reflects a production rate lower than maximum capacity, the current program reflects a feasible and economic production rate.				
F-14A	24	18	+2.46	+44.3
A reduced production rate is planned pending introduction of the F-14D model, which is to be introduced as the last production aircraft in fiscal year 1988.				
UC-12B/CX	24	12	−.545	−6.5
Explanation: Continued production at the rate of 12 aircraft per year (or less) is proposed pending revalidation of requirements for eight passenger (UC-12B) or greater (CX) capacity. Competitive procurement is planned.				
T-34C	114	38	+.2	+7.6
More realistic production rates tempered by Navy's ability to accept deliveries and revised requirements (88 versus 114) caused the fiscal year 1986 rate adjustment.				
E-6A	3	2	+56.1	+112.2
Cost increase primarily reflects a better estimate of nonrecurring costs to startup production rather than an increase associated with a change in quantity.				
F/A-18	102	84	+4.346	+365.1
Explanation: Congress reduced the advance procurement in fiscal year 1985 thereby causing a cutback in the fiscal year 1986 program.				
TAO	3	2	−28.4	−56.8
Explanation: Competitive pressures and reduced inflation more than offset any minor cost increases due to the one ship procurement reduction.				
TAGOS	3	2	−6.3	−12.6
Explanation: Due to shipyard constraints, construction of 2 ships per year is the maximum economic rate. The ships will be constructed and delivered on the same schedule whether three ships are budgeted in fiscal year 1987. The reduction results from lower inflation rates and revised GFE prices.				
Phoenix	567	265	−.52	−137.8
Explanation: Due to delivery delays associated with buidling up the production rate and quality assurance problems, the Phoenix procurement program was constrained.				
Standard Missile: SM-2 ER	500	470	−.016	−7.5
Explanation: Based on changing priorities, the Standard SM-2 Extended Range (ER) procurement level was revised.				
RAM	135	117	+.126	+14.7
Explanation: The Rolling Airframe Missile (RAM) is a joint program with our NATO allies (German and Denmark). Based on revised agreements, the RAM procurement program was restructured.				
Maverick:				
Navy	200	195	+.013	+2.5
Air Force	8,000	3,500	+.050	+175.0
Explanation: The fiscal year 1986 procurement quantity has been reduced to reflect a production ramp-up consistent with the lower fiscal year 1985 program approved by Congress.				
Close In Weapon System: (Phalanx)	43	39	+.4789	+5.2

COST IMPACT OF CHANGES IN PRODUCTION RATES—Continued

[Dollar amounts in millions]

System	Quantities fiscal year 1986		Fiscal year 1986—	
	Fiscal year 1985 budget	Fiscal year 1986 budget	Unit cost change	Program cost change
Explanation: Unit price increase primarily resulted from the incorporation of baseline improvements to correct reliability and maintainability problems highlighted by operational units. Also improvements have been incorporated which increase magazine capacity and increase search elevation angle.				
Torpedo: MK-46	1,521	500	NA	−207.7
Explanation: Structure of MK 46 program changed due to the combining of MK 46 and MK 46 Mods in a single multiyear procurement, which actually results in lower unit costs. The reduction in quantity did not increase unit costs. MK 46 production reduced due to fiscal year 1987 initial procurement of Advance Lightweight Torpedo (MK 50) and because of the cancellation of the CAPTOR mine program which made 1,663 MK 46 Mod 1/2 torpedoes available for conversion to Mod 5 configuration. This reduces the number of the all up round new MK 46 torpedoes needed to meet the inventory objective. The reduction in MK 46 quantities is balanced by the increased production of kits for modifications which will maintain the production rate at an economical rate.				
AMRAAM	1,042	90	+4.063	+365.7
Explanation: Based on the full scale development program slippage, the procurement program was restructured to reflect initial procurement in fiscal year 1986 instead of fiscal year 1985.				
GLCM	120	95	+.29	+27.6
Explanation: The fiscal year 1986 procurement program was revised to reflect the current deployment schedule.				
Stinger	2,055	800	+.004	+3.2
Explanation: The Marine Corps Stinger program increased in cost because of a decision to prorate the nonrecurring production support costs over the Marine Corps quantity, instead of the Army only. Otherwise, the unit cost would have dropped.				
F-15	60	48	+3.2	+153.6
Explanation: Fiscal year 1985 congressional action reduced fiscal year 1985 advance procurement for fiscal year 1986; thereby, limiting the fiscal year 1986 program to only 48 aircraft. The fiscal year 1986 unit cost increase of $3.2 million is also the result of selection of the new competitive fighter engine and initiation of the F-15E (Derivative Fighter) procurement in fiscal year 1986.				
F-16	216	180	−3.2	−576.0
Explanation: The reduction of 36 aircraft in the fiscal year 1986 program was the result of congressional action deleting advance procurement funds in fiscal year 1985 in support of a lower fiscal year 1986 program. The unit cost decrease of $3.2 million is the result of elimination of 36 aircraft that would have been procured as an annual procurement concurrent with the remaining 180 aircraft which are being procured as part of the second F-16 mulityear procurement. Elimination of these 36 aircraft resulted in a lower unit cost for the residual 180 aircraft. Another factor contributing to a lower cost was selection of the General Electric F-110 engine in the fighter engine competition which resulted in a lower unit cost than reflected in the fiscal year 1985 budget.				
MC-130H	4	1	+51.3	+51.3

COST IMPACT OF CHANGES IN PRODUCTION RATES—Continued

[Dollar amounts in millions]

System	Quantities fiscal year 1986		Fiscal year 1986—	
	Fiscal year 1985 budget	Fiscal year 1986 budget	Unit cost change	Program cost change
Explanation: The reduction of one MC-130H was the result of the Air Force action to modify C-130H configuration rather than procure an additional C-130H. The unit cost increase is related to procurement of 3 fewer aircraft, an increase in the cost of all weather avionics due to deletion of these systems from the HH-60 program. Additionally, the current request includes funding for support items which increases the average unit program cost.				
M1 Tank	720	840	−.202	−170.0
Explanation: Increased to a more economic rate.				
M240 Machine Gun	4,786	4,921	+.001	+2.9
Explanation: Slight increase in production rate. Cost increase is to related to production rate.				
M88 Recovery Vehicle	180	240	−.038	−9.1
Explanation: Rate increased to a more economic rate.				
TOW-2	18,000	20,100	−.018	−361.8
Explanation: Due to the increased quantities and the inclusion of projected Marine Corps and FMS quatitites, the TOW-2 program reflects maximum economic production rates, resulting in a unit cost decrease.				
EA-6B	6	12	−13.3	−159.6
Explanation: Rather than continue production at the rate of six per year, production was increased to 12 per year, allowing fleet requirements to be meet on a more timely basis at an economic rate.				
Tomahawk	180	249	−.221	−55.0
Explanation: Due to the pending resolution of programmatic issues, the Tomahawk program was limited to its low rate production level. Now that this constraint has been lifted, the Tomahawk program is building its production rate and increasing its procurement levels to meet the Department's sustainabilty objectives and to fill critical shortages in inventory levels.				
Sparrow (Navy)	1,692	1,872	−.006	−11.2
Explanation: Due to full scale development program slippage in the AMRAAM program, the Air Force has reinstated interim Sparrow procurement. The Navy has increased its procurement levels to meet the Department's sustainability objective and to fill critical shortages in inventory levels.				
Standard Missile SM-2 MR	830	846	+.001	+.8
Explanation: Based on changing priorities, the Standard SM-2 Medium Range (MR) procurement level was revised.				
Harpoon	360	395	−.134	−52.9
Explanation: In order to maintain the economic benefits of the contractor's reduced prices in fiscal year 1985, the fiscal year 1986 Harpoon procurement was increased to allow for the procurement of increased quantities at reduced prices, to meet the Department's sustainability objectives, and to fill shortages in inventory levels.				
Harm:				
Navy	779	904	−.062	−56.0
Air Force	1,682	1,715	−.041	−70.3
Explanation: The fiscal year 1986 Harm procurement was increased to allow for the benefits of reduced prices due to a more rapid production rate buildup, to meet the Department's sustainability objectives, and to fill critical shortage in inventory levels.				
Sidearm	151	168	+.036	+6.0
Explanation: fiscal year 19886 funds are requested for the initial Sidearm, procurement. The procurement has been restructured to be a 2-year procurement program instead of a 3-year procurement program as structured last year.				
AGM-130 Powered GBU-15	65	97	−.271	−26.3

COST IMPACT OF CHANGES IN PRODUCTION RATES—Continued

[Dollar amounts in millions]

System	Quantities fiscal year 1986		Fiscal year 1986—	
	Fiscal year 1985 budget	Fiscal year 1986 budget	Unit cost change	Program cost change
Explanation: Fiscal year 1986 funds are requested for the initial AGM-130 procurement. The increased procurement level allows for the procurement of increased quantities at reduced cost.				
Sidewinder:				
Navy	1,220	1,220		
Air Force		800		
Total	1,200	2,020	−.01	−20.2
Expanation: Due to full scale development program slippage in the AMRAAM program, the Air Force has reinstated interim Sidewinder procurement.				
TOW-2	4,014	4,782	−.004	−19.1
Explanation: Due to the increased quantities and the inclusion of projected Army and FMS quantities, the TOW-2 program reflects maximum economic production rates, resulting in a unit cost decrease.				
HAWK	482	550	−.008	−4.4
Explanation: The increased quantity results in a lower unit cost since the procurement is at a more economic rate.				
C-20	3	8	−1.4	−11.2
Explanation: Subsequent to the submission of the fiscal year 1985 budget the C-20 airframe contractor submitted an unsolicited proposal to procure the remaining 8 C-120 aircraft in a single lot versus 3 separate lots. The savings associated with this acceleration was about $49.0 million over the three year period. Funding was added to the fiscal year 1986 Air Force budget to accelerate the program and achieve the savings. These savings were partially offset by a new requirement for an expanded avionics suite.				
TR-1/U-2	1	8	−52.6	−420.8
Explanation: The Department increased the fiscal year 1986 program to replace aircraft that had attrited and to provide a sufficient number of aircraft to reflect projected attrition.				

---

[1] Classified number.

PRODUCTION INEFFICIENCIES

Senator Nunn. Secretary Weinberger, on page 23 of your statement you indicate that contractor overhead costs make up one-third of the price charged by prime contractors for weapons systems.

To what degree do you believe that the low rate of production and the excessive number of production lines artificially inflate the overhead bill for our weapons systems?

Could we reduce the amount of our procurement dollars going strictly for overhead if we reduced the number of production lines and purchased weapons at higher rates of production?

How high a priority is that for you in trying to improve the output of our investment in defense?

Secretary Weinberger. Increasing production rates to economic levels is a high priority for me. A low rate of production inflates the overhead bill to the degree that indirect labor and existing production facilities are not being efficiently used. Additional production lines within the same production facility spread overhead costs over a larger base. Lower product unit costs result. Competitive acquisition and production tend to hold down overhead costs since producers with lower overhead can compete more successfully.

Because several production lines can be maintained in a single plant, reducing production lines does not automatically reduce overhead. It may increase it on the remaining lines.

As you know, the Reagan administration places a high priority on efficient production rates and the funding of only essential weapons systems. We are pleased that the Congress has supported these efforts. Continued congressional assistance is requested this year to insure that efficient production rates and low per unit overhead costs will be maintained in fiscal year 1986.

REDUCTIONS TO THE FISCAL YEAR 1986 BUDGET

Senator **Nunn**. Secretary Weinberger, chart No. 3 in your statement shows that the fiscal year 1986 budget level you are presenting today has been reduced by $58.5 billion from the level proposed back in March 1981.

How were these reductions made?

How much savings is due to financing and economic changes like lower inflation and lower fuel prices?

How much is due to delaying or stretching out programs?

How much savings is due to terminations and cancellation of programs?

What specific programs have been canceled?

Secretary **Weinberger**. In March 1981, the Department estimated outlays for fiscal year 1986 at $336.0 billion. The current estimate for fiscal year 1986 outlays is $277.5 billion, or $58.5 billion below the level proposed back in March 1981. Lower inflation in fuel purchases and other areas of our budget, combined with lower pay raises for military and civilian personnel, account for about two-thirds of this reduction. Also, there have been significant program cuts.

For example, large reductions were made to procurement of weapon systems such as the F-14, F-15, F-16 and F-18 aircraft; the Patriot, Stinger, Pershing, Maverick, GLCM and Phoenix missile programs; the Bradley Fighting Vehicle; and four ships were deleted from the original plan. We have been analyzing and rebalancing our force requirements continually since development of that initial estimate in March 1981.

PRIOR YEAR SAVINGS

Senator **Nunn**. Secretary Weinberger, at a news conference last month you pointed out that DOD has fallen below your outlay estimates each year "partly because the President's program has resulted in so much lower inflation and . . . partly because we've had a improved management here that has enabled us to do that."

You have also been quoted as telling the President that the Defense Department could pay the $500 million fiscal year 1985 costs of a three percent July 1 pay raise for the troops within funds already appropriated.

Defense outlays are lagging behind schedule, unexpended balances are projected to be $243 billion by the end of fiscal year 1986, you are quoted as saying you can pay a $500 million bill within the available funds.

Has Congress appropriated more money for the Defense Department in the last few years than will be used?

Secretary **Weinberger**. Congress recognized and joined this administration 4 years ago in a program to rebuild and revitalize our military capabilities, which had been neglected for many years. The appropriations provided by the Congress each year since that time have resulted in significant accomplishments toward this objective. However, unexpended balances remaining do not imply that more money has been appropriated than will be used. Of the $243 billion in unexpended balances projected at the end of fiscal year 1985, almost 80 percent, or $192 billion, is obligated and awaiting final payment. This then leaves a projected unobligated balance of some $51 million. But, these amounts are carried over so that we can honor subsequent year contractual commitments for specific programs approved previously by the Congress.

As you know, contractor performance, billings and subsequent payments are made over the course of several years. In addition, the changes in program mix and dollar levels from year to year will have an associated impact on the amount of balances carried forward. The rebuilding and modernization of defense military capabilities have focused on the research, development, and procurement of complex and technologically advanced weapon systems and equipments, thus causing balances to rise more noticeably in recent years.

Senator **Nunn**: Mr. Secretary, of the $14 billion in reductions you submitted to the fiscal year 1985 Defense budget as part of the Rose Garden Compromise last year, $1.6 billion represented simple transfers of prior year unexpended balances that were not needed for the purposes for which they were originally appropriated.

Have you gone back and scrutinized that huge pot of prior-year unexpended balances for savings that could be applied to offset some portion of your budget request this year?

Secretary **Weinberger**. The Department of Defense obligates close to 99 percent of every dollar appropriated. Most of the remaining 1 percent must be reserved for price increases until the end item is delivered. The amount of lapsing (expiring) obligated balances has been increasing as a result of increases in total obligational authority (TOA). An analysis of the obligation trends of these lapsed funds indicates that only a small percentage are used during the next two years after expiration of the appropriation.

During the development of the fiscal year 1986 budget an analysis of fiscal year 1983 procurement apprpriation funds indicated that $620.4 million would lapse and remain unobligated on September 30, 1985. In order to more efficently utilize these funds, projected fiscal year 1983 lapsing balances were used to satisfy current year (fiscal year 1985) program requirements, which permitted a corresponding reduction in the amount of TOA required in fiscal year 1986. This same methodology was used with expiring fiscal year 1982 funds that was part of the Rose Garden reductions.

The following table lists the reductions made to the fiscal year 1986 appropriations as a result of the reapplication of projected fiscal year 1983 lapsing balances:

Fiscal year 1986

Appropriation	*Millions*
Army:	
Aircraft Procurement, Army	–$39.9
Missile Procurement, Army	–24.0
Procurement of Weapons and Tracked Combat Vehicles, Army	–69.0
Procurement of Ammunition, Army	–44.5
Other Procurement, Army	–36.3
Subtotal	–213.7
Navy:	
Aircraft Procurement, Navy	–81.2
Weapons Procurement, Navy	–26.8
Other Procurement, Navy	–36.9
Procurement, Marine Corps	–29.4
Subtotal	–174.3
Air Force:	
Aircraft Procurement, Air Force	–138.4
Missile Procurement, Air Force	–38.5
Other Procurement, Air Force	–49.7
Subtotal	–226.6
Defense Agencies:	
Procurement, Defense Agencies	–5.8
Total	–620.4

FORWARD DEPLOYED FORCES

Senator. **Nunn**. Mr. Secretary, last week you testified that, in your judgment, more of our conventional forces should be forward-deployed, rather than based in the United States.

Could you discribe for us exactly what you had in mind. What kinds of forces would you move forward and where would you base them?

What problems would this create for our so-called "swing" forces, those with commitments to more than one possible conflict theater?

Have you formed an estimate as to whether the reduced demands for lift would save more money than it would cost to forward-station more of our U.S. forces?

Secretary **Weinberger**. America's strategy for defense stresses a reliance on forward-deployed forces. U.S. interests and commitments and the threats we face require that we continue substantial forward deployments in and around Western Europe, Northeast Asia, and Southeast Asia. In Southwest Asia (SWA), the desires of the nations in the region limit, for the present, the amount of land-based U.S. presence. We do, of course, keep a carrier battle group forward-deployed in the Indian Ocean, and the Middle East Force is on station in the Persian Gulf. To supplement this presence, we have the Near-Term Pre-Positioning Force at Diego Garcia.

Southwest Asia is an example of where we are seeking to increase, in a small way, our forward deployments. Specifically, we would like to achieve a small, land-based Forward Headquarters Element for the U.S. Centeral Command (USCENTCOM). Additionally, we would like to establish several communications sites for USCENTCOM's use. We believe limited forward deployments such as these will contribute to deterrence of Soviet aggression, increase our ability to respond quickly in a crisis, and will reassure our friends while not offending their sensibilities.

These types of limited increases in our forward deployments in SWA have little or no bearing on our "swing forces." The term "swing forces" generally applies to naval forces that could be used in either the European or Pacific theaters. Due to the inherent flexibility of naval forces, there is little difference in availability between units which are "forward-based" and those which are "forward-deployed" but based in the United States.

The relative cost-effectiveness of forward-basing versus lift is in a large measure dependent on the degree of threat. In areas of the world where the threat is high and extensive, a large U.S. presence, while expensive, is highly effective in deterring aggression and assuring our allies. In other areas, there is less need for in-place U.S. forces, but there remains a need to react in a timely manner. Since there are several such areas, the price for forward-basing in all would be prohibitive. Hence, we have elected the cost-effective option of keeping a central reserve in the United States which can be lifted in time of crises.

DEFENSE REDUCTIONS

Senator NUNN. Secretary Weinberger, in the last three fiscal years Congress and the administration together have reduced the annual Defense request by an average of $18.8 billion. One-third (33 percent) of these reductions have been from simple financing adjustments after the budget was submitted—lower inflation, lower fuel prices, contract savings.

Is it reasonable to assume that by the time Congress actually enacts the fiscal year 1986 Defense budget, there will be six to $8 billion in reductions due to these types of financing adjustments that can be made again this year without any damage at all to our defense program?

Secretary WEINBERGER. One of the major accomplishments of this administration has been the success in reducing the level of inflation. This has made it possible for the Department of Defense and others to buy more program with less dollars. However, as we have achieved an inflation level in the 3–4 percent range, it is doubtful if we can continue to find the dollar savings as a result of lower inflation in the amounts identified in the past several years. The inflation assumptions included in the fiscal year 1986 budget are very modest and are well in line with most public and private forecasts. The acquisition and management initiatives to hold down prices will continue to receive close attention and if we find that we have overpriced any of our programs, we will offer up these savings as we have done in the past.

START

Senator NUNN. Secretary Weinberger, according to a recent public description of the "new U.S. strategic concept," President Reagan has decided that we should concentrate during the next ten years on achieving deep reductions in each side's nuclear arsenals and then begin a transition to a defense-dominant strategic balance based on non-nuclear weapons.

Is this description accurate?

Secretary WEINBERGER. Yes, that is an accurate description.

Senator NUNN. Under this concept, is the second, or transition, phase which starts in about 10 years, dependent on achieving the deep reductions envisioned in phase one? In other words, does the concept say that arms control must precede any deployment of defensive systems if they are to be effective, rather than vice versa?

Secretary WEINBERGER. We must not let the Soviets call a halt to our efforts in strategic defense by their refusal to reach an agreement limiting offensive weapons. A defensive system dependent for it's effectiveness on greatly reduced offenses would not be a successful end product of the SDI research program, in that it would give unilateral control of its effectiveness to the Soviets. With such control of strategic defense, they would be able to thwart our goal of a more stable deterrent based on defense against nuclear arms simply by their refusal to accept offensive arms control. A successful Strategic Defense Initiative will motivate arms control, it must not require arms control for its effectiveness.

ARMS CONTROL AND ABM TREATY

Senator NUNN. Secretary Weinberger, Secretary Shultz has declared that one of the goals of the upcoming talks will be to prevent further "erosion" in the integrity of the ABM Treaty.

Is it credible to insist that the Soviets remain strictly within the confines of these treaty limitations while we, as a matter of the highest national priority, pursue a course which by the early 1990s will clearly carry us beyond the same limitations?

Secretary WEINBERGER. The Strategic Defense Initiative (SDI) is a research program. Its purpose is to explore new technologies that may lead to a reliable and effective defense of the United States and our allies from ballistic missile attack. This program is completely consistent with the ABM Treaty and other agreements.

The SDI is a long-term program. No decisions on development or deployment of new defenses are expected for a number of years. We will have to live for some time with uncertainty as to the outcome of SDI. If and when we do decide that defenses can contribute to our security, it will be a matter for discussion with the Soviets and with our allies.

FORCE STRUCTURE TABLES

Senator NUNN. Secretary Weinberger, the classified version of the fiscal year 1984 Posture Statement included a set of Force Tables in Appendix showing past and current force levels as well as projected force levels for the FYDP.

For the record, would you please submit an updated version of the chart for the fiscal year 1986-1990 FYDP?

Secretary WEINBERGER.

[The charts requested follow:]

[The referred to charts are classified and are retained in committee files.]

Senator NUNN. Secretary Weinberger, on page 9 of last year's report on United States expenditures in support of NATO, you provided a series of estimates of what you called "The Range of NATO Costs."

For the record, please update these costs for the fiscal year 1986 budget.

Secretary WEINBERGER. We are updating these estimates and will provide them to Congress by April 1, 1985, as required by Section 1002, PL98-525, The Department of Defense Authorization Act, 1985.

NATO CONVENTIONAL CAPABILITIES

Senator NUNN. Mr. Secretary, you describe on page 103, "our resolve to build munitions inventories to the point that we would never be forced to escalate to theater nuclear weapons because our conventional sustainability has been exhausted."

However, General Rogers has testified that the low sustainability levels of European allies will require him to seek authority to use nuclear weapons in "days, not weeks."

Also, last summer, your department estimated that we would spend more than $50 billion for munitions for U.S. Forces in Europe over the next five years, despite the fact that U.S. Forces have two or three times the days of supply of our allies.

Now, if our allies are going to run out in "days, not weeks," what is the justification for the increases?

I could ask the same about war reserve stocks in the theater.

Secretary WEINBERGER. Let me say first that the NATO ammunition disparities are not as pronounced as you indicate. The Allied ammunition problem is not one of shortages across the board, but rather shortages in selected categories. For several categories, the Allies are doing well in relation to NATO's stockpile objectives. However, the main point is that there is now a clear recognition in the Alliance that conventional sustainability has to be improved and that it has to be balanced among the Alliance's members in order to be effective in a conflict. This is precisely the reason for the special emphasis Ministers placed on the question at last December's Ministerial meeting, when they undertook to adjust their munitions programs for selected high priority items with a view to expanding their current plans and accelerating progress toward meeting NATO's [deleted] objective.

M-DAY FORCES

Senator NUNN. Secretary Weinberger and General Vessey, I would like to have you tell me more about the U.S. early reinforcement commitment to NATO. As I understand the commitment, the intent is to get 10 combat divisions in Europe as rapidly as possible, isn't it?

Now these units don't have to be fully formed up and at the front lines in order to count, do they?

So, those divisions don't necessarily have to have all of their Non-Divisional Combat Support and Combat Service Support Units there in order to be counted, do they?

Some of those are the units for long-term sustainment, aren't they?

Now, how much of the "M-day package" that goes over just for our already in-place U.S. forces is what we might consider units provided for long-term sustainability?

Secretary **WEINBERGER**. President Carter at the NATO Summit of 31 May 1978 agreed to perposition heavy equipment for three additional divisions in the Central Region of Allied Command Europe; recognizing the need for Europe allies to provide the necessary facilities. This brought the total number of divisions in place or POMCUSed to 10. At the December 11, 1979, DPC Ministerial meeting, Secretary Brown first articulated the agreement which has come to be called "Transatlantic bargain" in the terms in which we are now accustomed as follows:

"Our plan is that reinforcing divisions arriving from the United States by the NATO M + 10 date will increase from three to six during the period of the next 5 years or so."

"The other half of the Transatlantic bargain" that is made with our allies on this issue is assistance in the form of land, commonly-funded facilities and a wide variety of wartime host nation support, without which such rapid reinforcement is not feasible."

By NATO definition these must be "kept at a high level of operational and material readiness, capable of accomplishing assigned mission." The objective to meet our commitments is to have these forces "in their NATO assigned position . . . and ready to fulfill their assigned missions after being directed by competent authority" within 10 days.

General **VESSEY**. Our strategy of deterrence through forward defense with limited peacetime presence is the cornerstone of our NATO commitment. Rapid reinforcement of NATO is vital not only for deterrence of war, but also to the conduct of a successful defense of NATO should deterrence fail. Our commitment to NATO requires 10 sustainable divisions and 60 combat capable tactical aircraft squadrons in Europe prior to hostilities. The divisions do not have to be at their combat positions to be counted; rather a division would be counted when the personnel and divisional unit equipment have completely joined together in a tactical assembly area and the division has attained the required degree of readiness to be transferred to the control of a NATO commander. The commitment does require sustainable divisions; thus, there is a requirement for combat service and combat service support units necessary to sustain a theater division. The rapid reinforcement plan requires each division to be able to sustain itself for 30 days. Those service units that would arrive early to support their divisions during this initial phase of the reinforcement would also have a long-term sustainment requirement after the forces closed were in their combat positions.

The "M-day package" includes nondivisional combat service and combat service support forces required to open and establish resupply and sustainment LOCs and provide essential support for the USAREUR forward deployed units. Again, those service units that are required early would have the additional role of providing long-term sustainment.

NATO MOBILITY QUESTION

Senator **NUNN**. General Vessey, I notice that in your posture statement the DOD goal for airlift is still 66 million ton-miles per day. Is this capacity required solely to meet a Europe deployment scenario, or is this to meet simultaneous contingencies?

General **VESSEY**. Senator, the 66 million ton-miles per day airlift goal provides the minimum capability necessary to reinforce NATO and concurrently deploy forces to Southwest Asia and the Pacific.

NATO AIRLIFT REQUIREMENTS

Senator **NUNN**. Once we have completed the filling of POMCUS Units 5 and 6 and made good on other shortfalls, how much airlift, in MTM/D, is required to meet the U.S. commitment of "10 division in 10 days?"

General **VESSEY**. The airlift requirement for the ten divisions is about 37 MTM/D; however, we must add about 7 MTM/D for the 60 tactical fighter squadrons and about 11 MTM/D for the USMC units which deploy to the flanks. Therefore, approximately 55 MTM/D are required to meet our Rapid Reinforcement Commitment to NATO.

NATO CONVENTIONAL CAPABILITIES

Senator NUNN. By what year do you anticipate being able to achieve "10 divisions in 10 days" for the European scenario?

General VESSEY. With all six POMCUS division sets completely filled, no M-day Army support shortfalls, with the emergency use of U.S. and Allied civilian lift assets, and with 100 percent of our programmed airlift capability dedicated to NATO reinforcement, [deleted].

SDI

Senator NUNN. General Vessey, in your opinion, what should the limits of negotiability be with respect to the SDI?

To put it differently, would you be prepared to live with the current restrictions of defense systems contained in the ABM Treaty provided strict Soviet compliance was guaranteed, or are you convinced that we must negotiate amendments to the Treaty that would permit development and possible deployment of defense systems currently banned by the Treaty?

General VESSEY. The purpose of the President's Strategic Defense Initiative is to identify ways to exploit recent advances in ballistic missile defense technologies that have potential for strengthening deterrence. The program is designed to answer a number of fundamental scientific and engineering questions that must be addressed before the promise of these new technologies can be fully assessed. The SDI research program will provide to a future President and a future Congress the technical knowledge necessary to support a decision on whether to develop and deploy such advanced defensive systems.

At the President's direction, the SDI research program will be conducted in a manner fully consistent with all U.S. treaty obligations, including the 1972 ABM Treaty. This Treaty explicitly permits the kind of research envisioned under SDI. The ABM Treaty provides for possible amendments and periodic review sessions in which possible changes can be discusssed. When SDI research has produced specific options to develop and deploy a ballistic missile defense sytem, we would then address the question of availing ourselves of those procedures in order to modify the Treaty.

STRATEGIC VERSUS CONVENTIONAL PROGRAMS

Senator NUNN. General Vessey, we have had another year now in which by virtually every measure we and our NATO allies were outproduced by the Warsaw Pact in aircraft, artillery, tanks, helicopters, and many other categories of conventional weapons. We continue to turn out U.S. tanks, planes and other equipment at far less than the originally planned economic production rates.

Again in this budget strategic and space programs have the highest priority and have been fenced.

Last year I asked you whether anyone at the JCS level was ready to holler uncle on behalf of conventional forces and you said no.

Are you satisfied with the balance between funding for strategic and conventional forces in this budget?

If this budget is reduced, as appears likely, do you think strategic and space programs should be fenced from any reductions?

General VESSEY. Adverse trends in either the strategic or conventional balance of forces lessens assurance that aggression can be deterred, and the U.S. has been "outproduced" in strategic as well as conventional systems in recent years. Approximately 13.5% of the DOD budget is allocated for strategic programs including SDI. I am satisfied that this is the minimum funding that is required to allow us to proceed with these programs.

Senator NUNN. General Vessey, Secretary Weinberger has already indicted he would prefer to have more forces forward deployed to likely trouble spots.

If we were going to create additional units, why would we want to put them in Alaska?

General VESSEY. The defense of Alaska is important both as one of our states and as a geostrategic area of significance. There is no question that the defense of such a large and important area would require correspondingly large forces in the event of a determined attack. Additional forces would be needed from National Guard and reserve component units and from reinforcements coming from the contiguous 48 States. Therefore, a combined U.S.-Canadian cooperative effort is required.

At the present time, the 172d Infantry Brigade is the primary active component ground force in Alaska. Additional active ground defense forces are needed at critically important locations on the mainland and in the Aleutians. The expansion of our defense forces there by the creation of one active, light division based on the 172d Brigade is a useful enhancement. Further, this division retains its ability for rapid deployment elsewhere, should circumstances dictate.

REINFORCEMENT OF NATO

Senator **Nunn**. General Vessey, in the late 1970s the United States agreed to make available to NATO as part of the so-called "transatlantic bargain" a total of ten US divisions within ten days of a NATO mobilization. Can we meet that test today? If not, how long would it take us to get the promised 10-division force over there?

General **Vessey**. Senator Nunn, the 1978 Washington Summit endorsed the NATO long Term Defense Program which included a US and NATO objective of providing a sustainable 10-division force with appropriate tactical air support in the Central Region prior to the outbreak of hostilities (D-Day). This goal is dependent, inter alia, on the completion of real estate acquisition, site construction, and the programmed POMCUS for six U.S. division equivalents. Four of the POMCUS sites have been constructed [deleted]. The remaining two sites have been acquired and are now being constructed. We currently must use both airlift and sealift to deliver the remaining equipment which will ultimately be stored in POMCUS. [Deleted.]

Senator **Nunn**. General Vessey, if the Congress were to fully fund the Five-Year Defense Plan, would we then be able to meet the 10 divisions in 10 days commitment?

What are the remaining obstacles after the Five-Year Defense Plan to meeting this goal?

Is it equipment for POMCUS, is a lack of airlift, or what?

General **Vessey**. Yes.

Questions Submitted by Senator John Stennis

NATIONAL GUARD AND RESERVE

Senator **Stennis**. Mr. Secretary, our National Guard and Reserve Forces have not received a fair share of the large increase in the Defense budget over the past several years. Congress has, for the past 4 years, provided substantial, additional funds solely for the equipment needs of the Guard and Reserve.

Now, I think you will agree with me that the contributions made by our Guard and Reserve Forces are not only important, but necessary to the military preparedness and readiness of our Total Force.

Please tell the Committee what the total figure for the Guard and Reserve is that you have proposed in the fiscal year 1986 budget, along with any new initiatives for the National Guard and Reserve, and also tell us how this compares to what has been proposed in the budget of the past 4 years.

Secretary **Weinberger**. Our fiscal year 1986 request for the Reserve Component Military Personnel, Operation and Maintenance, Military Construction appropriations and new procurement for the Reserve Components, as contained within the various Service procurement requests, is $19.6 billion. Since prior to the fiscal year 1985 budget the procurement request portrayed only total force requirements by service, new procurement funding for the National Guard and Reserve was not separately identified, except in a very limited and general sense. Thus, in response to your question regarding what was proposed for the National Guard and Reserve prior to fiscal year 1985, only what was originally requested for the Reserve Component Military Personnel, Operation and Maintenance, and Military Construction appropriations is provided. That information in total is as follows:

Fiscal year:	*Billions*
1982	$8.2
1983	9.9
1984	10.6
1985	14.3

Commencing with fiscal year 1985 we began to separately display the Reserve component portion of the service procurement requests and that information is being provided to the Congress. For fiscal year 1985 we requested, in addition to that funding already indicated, $1.7 billion in new procurement for the Reserve components. However, our current fiscal year 1985 estimate for Reserve component new procurement is now $5.8 billion. That figure reflects those funds added by the Congress and some readjustments made within the Department.

Our fiscal year 1986 program for the Reserve components continues to stress their role as an integral part of the Total Force. In addition to the increase in personnel strength requested, we are moving forward with our initiatives for enhanced training and the accelerated systematic modernization of the Reserve components. For example, we will continue modernizing the Army National Guard and Reserve tank fleet with M1 and M60A3 tanks and upgrading the air defense capability with Chapparal, Stinger, or HAWK missile systems; transfer four more FFG-7 class frigates to the Naval Reserve; introduce the F-15 fighter into the Air National Guard; and activate two C-141B airlift squadrons in the Air Reserve Force.

Senator STENNIS. I understand that the strengths proposed for the National Guard and Reserve components are 47,000 above the strengths approved in fiscal year 1985.

How will these extra personnel be utilized?

Are there additional responsibilities being delegated to the Guard and Reserve that require this increase?

Secretary WEINBERGER. The Reserve components' manpower strengths are growing both from additional missions being assigned and from increased manning of existing structures. The focus of these increases is in improved readiness and in modernizing force structure. Manning against wartime requirements continues to improve. Additional missions are being added such as the 29th Infantry Division (Light) in the Army National Guard; Combat Support and Combat Service Support units in the Army Reserve; support units in the Marine Corps Reserve; ships and support units in the Naval Reserve; fighter/attack and mobility aircraft and support units in the Air National Guard and Air Force Reserve.

ACTIVE DUTY MANPOWER

Senator STENNIS. Mr. Secretary, the fiscal year 1986 budget also includes an increase of 25,630 in the overall military manpower level above that which was approved in fiscal year 1985.

How can the services justify this large increase when I understand that the weapons systems that are now being procured use less manpower to operate?

Secretary WEINBERGER. We are requesting an active component military manpower increase of 25,630 (about 1.2 percent) over our projected fiscal year 1985 end strength levels. Most of this growth is associated with the introduction of new capabilities and associated force structure that must be in the active components in order to develop doctrine, train people, deploy in peacetime, and deploy quickly in crisis. We must also adequately support this force structure. Manpower requirements and strength levels are not independent of other modernization programs; however, over the past two years, the Congress has denied about 60 percent of the requested growth in active component end strength. This denial has come at a time when our force structure must expand to meet the increasing threat. As end strength levels are artificially constrained, the resultant under-manning of our much needed new programs ultimately degrades overall readiness. The requested growth is needed to operate, maintain, and support our expanding Navy and Marine Corps, and the new and expanding missions of the Air Force.

SOVIET DEFENSE SPENDING

Senator STENNIS. There have been recent reports that the Soviet Union may not have spent so much on the military as we previously thought and has slowed its momentum of military spending to about half the rate sustained for the years 1970-1975. Is it possible that the recent projected slow-down in Defense spending could be the result of overall ecomomic conditions in the Soviet Union rather than a change in their defense posture? What does this new information mean about the Soviet military buildup over the past several years, and what do you forecast for their buildup during the next 5 years?

Secretary WEINBERGER. The Soviet military program has expanded every year for the past two decades. The growth rate of this expansion slowed in the mid-1970's to about half of what it has been in the early 1970's. However, by the time this occurred, the Soviet military program was extremely large in absolute terms, and substantially bigger than comparable U.S. outlays. (In 1976, for example, the Soviet military program, measured in dollar terms, was almost 50 percent greater than the U.S.)

The major cause of the slower growth in the Soviet Union's total military program was the near-zero expansion of the military procurement account from 1976 through 1982. Despite this, the Soviet military has been adding the equivalent of $55-60 billion worth of weapons and equipment to their arsenal each and every year.

The explanation for the slowdown in the growth of the Soviet Union's military program hinges on the reasons behind the near-zero growth of the procurement segment of this program. We believe that for a variety of technological reasons, the Soviets may well have chosen to slow the expansion of procurment. This change in the growth pattern in no way indicates a change in their defense posture, except insofar as these reasons result in weaponry of improved capability.

Although we believe the changes in the Soviets' basic approach to weapon systems technology are most decisive in explaning the trends in weapons procurement, there are other factors which may have had a bearing on the growth trends of the Soviet military program during the late 1970s and early 1980s. The economy was continuing to expand, albeit more slowly, and becoming increasingly more complex and difficult to plan and manage from the center. Overall economic growth slowed markedly, as agricultrual output failed to meet requirements, and the productivity (or efficiency) of both labor and capital in industry was inadequate to maintain growth at previous rates. Regardless of the degree to which either technology or economic performance has influenced the trend in growth of the Soviet military program, it appears likely that there will be continued expansion of the Soviet military during the next five years because:

(a) many new, highly sophisticated and very costly weapon systems (such as Flanker, Fulcrum, Blackjack, SS-X-24, SS-X-25) have now entered or are about to enter serial production;

(b) military research and development has been the fastest growing account in the entire Soviet military program, and has now reached a point where it is approximately double the magnitude of equivalent U.S. outlays; and

(c) the Soviets continue to invest heavily in their military production sector, both expanding existing facilities and building completely new plants to produce the newest generation weaponry.

In light of the above, DIA has reported that the estimated dollar procurement costs of Soviet weapon systems increased in 1983 over 1982 by 5-8 percent, with preliminary findings of a similar increase in 1984.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

START

Senator **LEVIN**. Do you stand by the statement in your written Annual Report for fiscal year 1986, your "posture statement," that: "A new large phased-array radar that they (Soviets) are now building in the central USSR is almost certainly in violation of the 1972 ABM treaty"?

Secretary **WEINBERGER**. The President's February 1, 1985, Report to the Congress on Soviet Noncompliance with Arms Control Agreements presents the results of a thorough investigation of this and other possible Soviet arms control violations. The U.S. Government judges, on the basis of evidence which continued to be available through 1984, that the new large phased-array radar under construction at Krasnoyarsk constitutes a violation of legal obligations under the Anti-Ballistic Missile Treaty of 1972, in that in its associated siting, orientation, and capability, it is prohibited by this Treaty. Continuing construction, and the absence of credible alternative explanations, have reinforced our assessment of its purpose.

Senator **LEVIN**. You have said that "I am ruling out the possibility of giving up a strategic defense either in the research stage or if it becomes feasible, in the deployable stage." Are we or are we not willing to negotiate restrictions on the President's strategic defense initiative?

Secretary **WEINBERGER**. We are prepared to discuss defenses, both space based and Earth based, but will protect our right to pursue research on defensive technologies that may provide a basis for a more stable relationship in the future. We do not believe there should be constraints on research that has such positive potential; and, in any event, constraints on research would not be verifiable. No decisions on deployment of new defenses are expected for a number of years. If, in the future, we decide to pursue such defenses, this should be a matter for prior discussion with our allies and between the United States and the Soviet Union.

Senator **Levin**. Do you differentiate between *discussing* restrictions on the President's strategic defense initiative and *negotiating* such restrictions with the Soviet Union?

Secretary **Weinberger**. In the upcoming talks with the Soviet Union, we plan to discuss space-based systems and ground-based systems that can attack targets in space. We will address the potential benefits of moving in the future toward a defense-oriented deterrence. While the issues posed by the Strategic Defense Initiative are for the future, we are prepared now to discuss space arms and the broader question of defenses, including existing Soviet defensive weapons. We will also discuss various issues concerning Soviet noncompliance with the ABM Treaty.

Senator **Levin**. Will we consider negotiating possible restrictions on strategic defenses before our research into the feasibility of these systems is completed? If National Security Advisor Robert McFarlane is correct that it will take 5-10 years of research on space-based technology before a judgment can be made about whether a workable defense is possible, does that mean that there is no way we will negotiate restraints during the next 5 years?

Secretary **Weinberger**. We do not believe there should be constraints on research that has the potential to form the basis for a more stable relationship in the future. Futhermore, constraints on research would not be verifiable.

If and when we do decide that defenses can contribute to security, we will discuss these matters with the Soviets and with our allies.

ARMS RACE IN SPACE

Senator **Levin**. Do you fully share the goal of working out effective agreements with the Soviets aimed at preventing an arms race in space?

Secretary **Weinberger**. The only operational "space weapons" today are the Soviet anti-satellite system and the Soviet nuclear ABM system which have been deployed for many years. Our goal is a radical reduction in the number and power of existing and planned offensive and defensive nuclear arms, whether land based, spaced based, or otherwise.

Senator **Levin**. Do you agree we should reverse the erosion of the ABM treaty that has occurred over the last decade?

Secretary **Weinberger**. Yes, it is important that the integrity of the ABM Treaty be reestablished and its terms fully complied with. As the President stated in his recent Report to the Congress on Soviet Noncompliance with Arms Control Agreements, "in order for arms control to have meaning and credibly contribute to national security and to global or regional stability, it is essential that all parties to agreements fully comply with them. Strict compliance with all provisions of arms control agreements is fundamental, and this Administration will not accept anything less. To do so would undermine the arms control process and damage the chances of establishing a more constructive US-Soviet relationship.

The aggregate of the Soviet Union's ABM and ABM-related actions suggest that the USSR may be preparing an ABM defense of its national territory, in violation of the ABM Treaty. This is a matter of great concern, with serious potential security risks. The United States Government has vigorously pressed, and will continue to press, this and other compliance issues with the Soviet Union through diplomatic channels.

In addition to problems of Soviet compliance with the ABM Treaty, other things have contributed to its erosion. For example, the Soviet strategic force building program has grown beyond any reasonable sense of strategic balance. Also, at the time of signing of the ABM Treaty we envisioned that it would be accompanied by a comprehensive treaty on offensive nuclear forces; this has not occurred.

Senator **Levin**. Is it credible to insist that the Soviets remain strictly within the confines of these treaty limitations while we, as a matter of the highest national priority, pursue a course which by the early 1990s will clearly carry us beyond the same limitations?

SDI

Secretary **Weinberger**. The Strategic Defense Initiative (SDI) is a research program. Its purpose is to explore new technologies that may lead to a reliable and effective defense of the United States and our allies from ballistic missile attack. This program is completely consistent with the ABM Treaty and other agreements.

The SDI is a long-term program. No decisions on development or deployment of new defenses are expected for a number of years. We will have to live for some time with uncertainty as to the outcome of SDI. If and when we do decide that defenses can contribute to our security, it will be a matter for discussion with the Soviets and with our allies.

SDI AND AGGRESSIVE POLICY

Senator Levin. Do you agree that defensive strategic weapons systems, if paired with offensive strategic systems, can be viewed as fostering an aggressive policy?

Secretary Weinberger. No. Effective defenses can create strong incentives to halt the proliferation of ballistic missiles by reducing the military value of such forces and reducing the importance of their role in the strategic balance. In reducing the value of these weapons, defensive technologies could substantially increase Soviet incentives to reach agreements that reduce the levels of offensive nuclear arms—agreements that would enhance the security of both the United States and the Soviet Union.

SDI AND DETERRENCE

Senator Levin. Mr. Secretary, Messrs. Brzezinski, Jastrow and Kampelman, in an article which appeared a few weeks ago in the New York Times, said that "the combination of defense against space missiles with retaliation offense in reserve enhances deterrence." Do you agree with that?

Secretary Weinberger. Yes. Defense systems can provide varying levels of defense coverage, which convey varying benefits for deterrence and stability. An effective defense against ballistic missiles can enhance deterrence and stability by denying an aggressor confidence in his ability to predict a successful attack outcome and by reducing or eliminating the utility of preemptive attacks on retaliatory forces. If such defenses were combined with effective air defenses they could reduce or eliminate the military utility of ballistic missiles and airborne nuclear weapons and thus raise the threshold of nuclear conflict. In the extremely unlikely event, due to irrationality or accident, that such nuclear weapons would be used under these conditions, effective defenses could also make a major contribution to saving lives and reducing damage.

STRATEGIC DEFENSE INITIATIVE

Senator Levin. They also estimate the cost of establishing the first layer—the boost phase, by the early 1990s would be roughly $45 billion and would include 100 satellites, each holding 150 interceptors which, they say, is sufficient to countering a massive Soviet attack from all their 1,400 silos; plus four geosynchronous satellites and 10 low altitude satellites dedicated to surveillance and tracking, plus the cost of facilities for ground control communications and battle management. Can you assure us of the approximate cost with the same certainty?

Secretary Weinberger. At this time we cannot estimate the approximate cost of such a boost-phase defense layer, or any other layer for that mater. Our research program is designed to proceed in an orderly fashion to support early 1990s decisions on a defense that is effective, affordable, and survivable. Until this research is performed and a decision made on the kind and extent of the defense to be pursued, estimates of cost of the certainty you imply cannot be made.

Senator Levin. That same article stated that we can now construct and deploy, with development and some additional research a two-layer or double screen defense, which can be in place by the early 1990s at a cost somewhere in the neighborhood of $60 billion. Do you agree?

Secretary Weinberger. We can neither agree nor disagree with this statement. We have just embarked upon this research program, and at this time we could only speculate on specific types of systems and their estimated costs. The Strategic Defense Initiative (SDI) is a broad-based research program designed to expand and accelerate the progress of relevant defense technologies and to identify and assess the potential effectiveness of candidate, layered ballistic missile defenses that can be realized from that technology base. The SDI is not based on any single or preconceived notion of what an effective defense system would look like. At present, no single concept has been identified as being the best or most appropriate. The research program is so designed, however, as to answer the fundamental scientific and engineering questions necessary before the promise of emerging technologies can be fully assessed in the early 1990's.

Senator Levin. They further wrote that a conservative estimate of the effectiveness of each of the two defense layers would be 70 percent and that the combined effectiveness of the two layers would be over 90 percent. Can you say that with the same certainty.

Secretary **Weinberger**. It is mathematically correct that the combined effectiveness of two defensive layers, each 70 percent effective, would be over 90 percent. However, since the SDI research program is not based on any single or preconceived notion of what an effective defense would look like and has not, as yet, identified any single concept as the best or most appropriate, we cannot speculate with certainty about specific systems or their effectiveness.

It has long been recognized that a layered defense has great advantages. Experience with strategic defenses has taught us that a layered defense offers the best chance of achieving the required effectiveness against a broad range of existing and potential future threats and attacks. In pursuing the technology for such defenses, we seek to:

Capitalize on the synergism derived from repeatedly engaging enemy ballistic missiles with a mixture of weapons, enabling the progressive layers to work together to mitigate any weaknesses of the individual elements;

Exacerbate the uncertainty of a potential attacker in his ability to succeed in his attack by presenting him with a complex defense suppression problem; and

Deny damage from limited ballistic missile attacks and limit damage from full-scale attacks should deterrence fail.

SOVIET OBJECTION AND WEAPONS DEPLOYMENT

Senator **Levin**. If the Soviets object to a particular weapons system, is that objection evidence that it is in our national interest to deploy that particular weapon?

Secretary **Weinberger**. We believe that there are avenues for agreement between the United States and the Soviet Union. We are hopeful that the negotiations in Geneva will result in the achievement of equitable and verifiable agreement for significant reductions in the existing nuclear arsenals of both countries.

The Soviet Union objects to our Strategic Defense Initiative program while they are currently upgrading the world's only active BMD system, are pursuing research and development on a rapidly deployable ABM system and are actively pursuing an advanced defensive technologies deployment program.

COUNTERMEASURES

Senator **Levin**. Do you expect both sides will seek to deploy countermeasures to each other's strategic defense initiative if those defenses are deployed?

Secretary **Weinberger**. The United States would not develop and deploy any defensive system that could be countered simply. The SDI program is thoroughly examining responsive offensive countermeasures and threats to the survivability and effectiveness of conceivable defensive systems. New technologies may enable us to develop defenses at less cost than it would take to develop or proliferate enough ballistic missiles to overcome the defenses.

The United States continues to place the highest priority on achieving equitable and verifiable arms control agreements leading to significant reductions in offensive nuclear arsenals of the United States and the Soviet Union. We believe that the SDI program can reinforce this process and thereby enhance deterrence as we reduce our reliance on nuclear offensive forces.

Senator **Levin**. Do you believe either side will allow the other to deploy strategic defensive systems which would render obsolete its offensive missiles without seeking countermeasures to defeat those defensive systems?

Secretary **Weinberger**. Recent advances made in the essential technologies of ballistic missile defense hold promise that it may be possible to develop defenses that can maintain their effectiveness against the offense at less cost than it would take to develop offensive countermeasures or to proliferate the number of deployed missiles sufficiently to saturate or overcome the defense. If these technologies can reverse the cost advantage that offensive forces have traditionally enjoyed over defenses, they can exert powerful incentives for arms reductions.

REAL GROWTH IN SOVIET EXPENDITURE

Senator **Levin**. What have you been informed by the Intelligence Community was the annual real growth in Soviet defense expenditures in 1976? 1984?

Secretary **Weinberger**. The dollar cost of the Soviet military program, that is, the estimated cost of replicating Soviet military activities in the U.S., is large and growing. These dollar costs use a constant price base to eliminate the impact of inflation and reflect real changes in the military program. In fact, over the past decade, the cumulative dollar costs of Soviet military activities exceeded comparable U.S. defense outlays by about 35 percent and totaled over 2 trillion dollars.

During the period 1970 to 1976, the dollar costs of Soviet defense activities grew at an average annual rate of about 3.5 percent. Since 1976, the growth rate has continued, but at a rate of about 2 percent per year. This growth rate has been held down by military procurement, which has shown little growth in the cost of the Soviet military activities during this later time period has been in the RDT&E category.

The output of the RDT&E program began to show up in dollar estimates for Soviet military procurement costs for 1983. DIA now estimates that the procurement costs, in real terms, for the major pieces of Soviet military hardware increased by 5-8 percent over 1982. Furthermore, preliminary analysis indicates that this procurement growth continued at a similar rate in 1984.

U.S. VERSUS U.S.S.R. THROW-WEIGHT COMPARISON

Senator **Levin**. Are we relatively better off now vis-a-vis throw-weight of strategic nuclear missiles in the U.S.-Soviet inventories than we were in 1980?

Secretary **Weinberger**. A comparision of U.S. and Soviet throw-weight in 1980 and in 1985 reveals the following with regard to the static measure of throw-weight: (i) in 1980 the Soviets injoyed a 2.5 to 1 advantage over the U.S. in ballistic missile throw-weight; and (ii) in 1985 the advantage continued at 2.8 to 1 ratio. Much of this advantage has been brought about through the retirement of the U.S. Titan missile systems and Soviet deployment of the SS-19 missile. Thus, in terms of this static measure the Soviets have an advantage. More importantly however, throw-weight combined with accuracy has given the Soviets over a 2.4 advantage in time-urgent hard-target kill potential, which is a prime contributor to the current strategic imbalance of forces.

The President's strategic modernization program is designed to redress this imbalance of which throw-weight is just one part. We have accomplished much by there is still more to do. Thus far, the deployment of both the air- and sea-launched cruise missiles and the Trident submarine have moved the balance in the right direction. The Peacekeeper (MX) missile and the B-1B strategic bomber will reach their respective initial operational capability dates late next year and correct much of the current strategic imbalance.

DEPLOYED STRATEGIC WEAPONS

Senator **Levin**. Who has more strategic nuclear weapons deployed—us or the Soviets? What are the figures (broken down by each leg of the Triad)?

Secretary **Weinberger**. By the end of fiscal year 1985 the following will be true with regard to the number of strategic weapons deployed: (i) the U.S. will have a 1.1 to 1 advantage in total weapons deployed [deleted]; (ii) the Soviets will have a 3.0 to 1 advantage in ICBM weapons—weapons—[deleted]; (iii) the U.S. has a 2.6 to 1 advantage in SLBM weapons—[deleted]; and (iv) the U.S. has a 2.5 to 1 advantage in bomber weapons [deleted] which includes [deleted]. More importanly however, the Soviets have a 2.4 to 1 advantage in time-urgent hard-target kill potential, which is the cause of the current strategic imbalance of forces.

SDI VERIFICATION

Senator **Levin**. Has the Intelligence Community done a formal analysis of what we intend to do in the SDI program and judged how verifiable it might be, either with regard to Soviet monitoring capabilities or with regard to our own if we were watching Soviet SDI work?

If this formal analysis has not been done regarding all the SDI specifics, how can it be siad that some R&D limits are not verifiable? If it has been done please provide it to the committee.

Secretary **Weinberger**. With regard to Soviet monitoring of the U.S. SDI developments—the Soviet intelligence sources are so broad and the U.S. SDI program so visible that there is little question as to the accessibility of the general nature and thrust of SDI developments to the Soviets. Details of the SDI strategic defense research program—which is allowed by treaty provision—would be more difficult to obtain; however, testing of defense weapons, if and when it occurs, would be visible. [Deleted.]

Efforts to monitor Soviet SDI-type developments are continuously made. The Soviets have had basic and advanced traditional ballistic missile defense (BMD) systems and components under development and deployment for over 20 years. They are presently deploying a new BMD system at Moscow. They have been and are deploying new ballistic missile tracking radars—one of which is a clear ABM Treaty violation. [Deleted.] The USSR has also had directed energy weapon (DEW) research and development underway for over 10 years.

[Deleted.]

NEGOTIATIONS ON SDI

Senator **Levin**. In his statement, the President said we would discuss and negotiate whether and how to deploy an SDI system if one was deemed possible. We even promised Prime Minister Thatcher of England we would do that. Are you ruling that out and contradicting the President in your statement on Face the Nation?

Secretary **Weinberger**. If our research program is successful—I am confident it will be—we will be able through a combination of new technology and new arms control measures to create a world far more safer and stable than our present one. We have hoped that the Soviets would appreciate the seriousness of our SDI efforts and willingly enter into negotiations on the development of defensive technologies and the future of defensive systems.

NEGOTIATIONS ON SDI DEPLOYMENT

Senator **Levin**. You also said the SDI program "offers the only real hope and future to mankind since these weapons were first developed." You were referring to nuclear weapons. In your opinion, is the President wrong to promise our allies and the Soviets that he will negotiate whether to deploy an SDI system, thus creating the possibility that he might give up what you consider to be our salvation from the threat of nuclear destruction?

Secretary **Weinberger**. No, I don't believe you have correctly stated the President's promise. From the beginning of the research efforts, we have been open with the Soviets and our allies what we plan to do under the SDI program and what our purpose is in conducting such research. We have always hoped that the Soviets would appreciate the seriousness of our SDI efforts and willingly enter into discussions on the development of defensive technologies and the future of defensive systems. We hope the negotiations in Geneva will prove useful in exploring with the Soviets how the SDI research program and their own efforts in ballistic missile defense technology could in the future enhance stability as well as the security of both the United States, our allies and the Soviet Union.

ALLIES AND DECOUPLING

Senator **Levin**. Several of our allies have expressed concerns about the SDI program, even though they support our doing some research in this area. They are concerned that if both the U.S. and the Soviets develop defenses against ballistic missiles, it will make a conventional war in Europe more likely in view of Soviet conventional advantages; it will neutralize the independent nuclear deterent forces of the French and the British; and it would permit a nuclear war to be fought in Europe without either the U.S. or Soviet homeland being threatened, thus "decoupling" our nuclear deterrent from protecting them.

To respond to the decoupling argument, the Administration has said SDI will also try to develop defense against short range ballistic missiles as well as the ICBMs, SLBMS, and IRBMs in the Soviet arsenal.

Even if SDI works against all ballistic missiles, no matter how short their range and flight time, Europe still would be vulnerable to attacks by Soviet bombers, Soviet cruise missiles and the thousands of Soviet artillery tubes capable of shooting nuclear shells. Doesn't this mean either the Europeans will have to spend much more than they already are to strengthen their air defenses, or they still could be a "decoupled nuclear battleground" for the superpowers?

Secretary **Weinberger**. Our commitment to the defense of our allies remains intact. We will ensure that any defense system which we might develop in the future would strength global stability and the security of our allies as well as the United States. The SDI program is examining technologies for defense against ballistic missiles of sufficient range to strike the United States and shorter range ballistic missiles that can strike our allies.

The President has directed that the SDI program look not only at technologies which could prove effective in destroying ICBMs and SLBMs, but also those shorter range ballistic missiles that threaten our allies. We take this directive very seriously, because the ability to destroy such shorter range systems enable us to enhance not only nuclear deterrence in Europe, but conventional deterence as well.

Senator LEVIN. Even if the Europeans improve their air defense more than they have so far promised to do, no one in the Administration has yet said SDI could work against artillery shells of extremely short range. Unless you add that to the program, Europe still could be an unprotected battlefield for nuclear artillery exchange. How will you address this concern about decoupling by our allies?

Secretary WEINBEGER. We have never said that SDI will eliminate all threats, nor that it will eliminate the need for NATO to maintain military defenses. What we have said is that effective defenses can enhance deterrence and reduce significantly the likelihood of either nuclear or conventional attacks. Thus, an effective defense against ballistic missiles has the potential for significantly increasing the security of our European allies. This potential is derived from two sources; one indirect and one direct. Effective defenses can increase European security indirectly by reducing U.S. vulnerability to effective military attack, and thereby increasing the credibility, in Soviet eyes, of the U.S. commitment to the defense of Europe. More importantly, such defense can also increase European security directly, by reducing or eliminating the effectiveness of preemptive ballistic missile attacks on allied and U.S. deterrent forces deployed in Europe. Such a defense would significantly reduce the likelihood of a successful attack outcome which, in turn, would enhance the prospects that such an attack would never be contemplated.

Senator LEVIN. Europeans feel that another conventional war on their soil would be as bad as nuclear devastation. Without nuclear weapons to deter Soviet conventional attacks, if the Soviets have an SDI, why should the Europeans believe they are safer in a world where the United States and the Soviets have missile defenses?

Secretary WEINBERGER. In an environment in which the United States and the Soviet Union were both to deploy an effective defense against ballistic missile, both the countries' force structures could be expected to deemphasize ballistic missiles and shift in the direction of bombers and cruise missiles, both air-based and sea-based. In the event of mutual deployments of effective air defense, there would be strong incentives for reductions in these forces as well.

Soviet doctrine stresses the use of conventionally armed theater and tactical range ballistic missiles to initiate rapid and wide-ranging attacks on crucial NATO military assets throughout the full depth of the European theater. The purpose of this tactic is to reduce significantly NATO's ability to resist effectively the initial thrust of a Soviet conventional force attack and to impede its ability to resupply and reinforce combatants effectively from outside the theater.

By reducing or eliminating the military effectiveness of such ballistic missiles, defensive systems have the potential for enhancing deterrence not only against nuclear war, but against conventional war as well.

INCREASED PRODUCTION OF THE B-1B

Senator LEVIN. Mr. Secretary, you have been particularly outspoken in your position that this Nation needs 100 B-1B bombers. I disagree with that statement, but that program is underway. Many of us in Congress are concerned that efforts to increase production of the B-1B beyond 100 will divert funds needed for other, higher priority and more important strategic programs—most particularly the Stealth bomber. Would you strongly oppose efforts to increase production of the B-1B beyond 100 and would you personally become involved in the effort to prevent such production if some in Congress propose it?

Secretary WEINBERGER. The Strategic Modernization Program President Reagan set in motion in 1981 included quickly upgrading or air-breathing deterrent in the late 1980s with 100 B-1Bs and developing the Advanced Technology Bomber (ATB) for deployment in the 1990s. We expect both aircraft to severely stress Soviet air defenses through their complementary penetration capabilities. The B-1B, for instance, features highly sophisticated defensive electronic countermeasures while the ATB exploits the latest in low observables technology. The B-1B is turning out to be one of the most successful acquisition programs recently undertaken by the Department of Defense. In conjunction with strong Congressional support, we have moved well ahead of schedule and are saying within budget. The ATB is also progressing well. In other words, we are right on track with the President's Two Bomber Program. Therefore, the Air Force has no internal plans to expand the B-1B buy beyond the current 100 aircraft.

MORE THAN 100 B-1B

Senator LEVIN. Do you think that the Nation needs more than 100 B-1Bs, considering your two bomber program which has provided for development of the much more capable Stealth bomber shortly after the final B-1B is deployed?

Secretary WEINBERGER. The Strategic Modernization Program President Reagan set in motion in 1981 included quickly upgrading our air-breathing deterrent in the late 1980s with 100 B-1Bs and developing the Advanced Technology Bomber (ATB) for deployment in the 1990s. We expect both aircraft to severely stress Soviet air defenses through their complementary penetration capabilities. The B-1B, for instance, features highly sophisticated defensive electronic countermeasures while the ATB exploits the latest in low observables technology. The B-1B is turning out to be one of the most successful acquisition programs recently undertaken by the Department of Defense. In conjunction with strong Congressional support, we have moved well ahead of schedule and are staying within budget. The ATB is also progressing well. In other words, we are right on track with the President's Two Bomber Program. Therefore, the Air Force has no internal plans to expand the B-1B buy beyond the current 100 aircraft.

REDUCE FUNDING FOR STEALTH

Senator LEVIN. Would you oppose strenuously any efforts to reduce requested funding in the Stealth bomber if those funds were diverted to other programs, especially to continue B-1B production beyond 100?

Secretary WEINBERGER. Yes. I would strenuously oppose diverting Stealth bomber funds to other programs including B-1B production beyond 100 aircraft. Both the B-1B and the Advanced Technology Bomber (ATB) are top priority programs to modernize our strategic bomber force. In 1981 we recognized that production of the B-1B was essential to fulfill our near term requirement to replace the aging B-52 in the penetration role. This decision allowed us time to develop the ATB program at the fastest prudent pace while satisfying our near term needs. We need both the B-1B and the ATB as soon as we can get them. Diverting funds from the ATB program will reduce our capability to meet the future threat and disrupt our long term force structure plans.

STEALTH BOMBER SCHEDULE & COSTS

Senator LEVIN. Last year, our Strategic Subcommittee was told by the Assistant Secretary of the Air Force for Research, Development and Acquisition that the Stealth bomber was *not* a paper bomber. Do you agree? Do you agree that the present program to develop and deploy a Stealth bomber is both on schedule and within projected and acceptable costs?

Secretary WEINBERGER. Yes. I agree with the Assistant Secretary of the Air Force for Research, Development and Acquisition that the Stealth bomber is *not* a paper bomber. The present program to develop the Advanced Technology Bomber has given us high confidence the system will achieve initial operational capability in the early nineties as scheduled and be procured within projected cost.

DECISION TO BASE NEW WEAPONS

Senator LEVIN. Does the Air Force made its decisions about where to base new weapons systems—such as the B-1B bomber—based on the voting records or political records of Members of Congress who support or oppose such systems?

Secretary WEINBERGER. The Air Force makes its decisions about where to beddown new weapons systems on the basis of operational requirements and national priorities.

PROFESSIONAL WORKFORCE

Senator LEVIN. What steps would you recommend be taken to build upon and strenghten the procurement workforce within the Department of Defense?

Secretary WEINBERGER. Since the courts struck down the use of the Professional and Administrative Careers Exam (PACE) in 1981 as having a "disparate effect," there has been no method to directly hire college graduates into contracting jobs. This has had the single most negative impact on strengthening the procurement work force. DOD is actively working with OPM to develop a new competitive exam but OPM states the exam will not be ready until October 1985 and thus will miss the June's college graduates.

DOD is working to further career development programs and to extend the use of procurement intern programs. DOD has contacted 80 colleges and universities throughout the country, asking them to consider developing undergraduate and post graduate courses and degree programs which specialize in procurement, contracting, and acquisition management, to supply the employment needs of procurement positions within the Federal Government. A number of schools have already requested, and we have provided, information on how to develop such programs.

Finally, we must be able to offer to prospective employees salary and fringe benefits packages that are competitive with private industry, and we must maintain an adequate grade structure to retain careerists.

STATUS OF THE INDUSTRIAL BASE

Senator LEVIN. Some have expresed the view that the lead time for defense systems production is due, in part, to the decline of the "industrial base," particularly among the third and fourth tier subcontractors who support prime contractors. These businesses appear to have been particularly affected by the decline in commercial business and by the lack of opportunities for direct government work. What is your perspective on the number of firms capable of supporting your present and future needs? What is your view of the status of the "defense industrial base?"

Secretary WEINBERGER. Long lead times for defense systems can be correllated with a decline in overall U.S. industrial base capabilities. The loss of commercial and government markets has led to discontinuations or reductions in certain lines of production. These actions in turn have led to the development of bottlenecks and constraints in the production base for weapons systems.

In short, the "defense industrial base" has been continuously eroding at subtier levels for many years. The base has become less dependable for production accelerations to meet defense needs during emergencies. It is losing its comprehensive vertical (from the bottom up) responsiveness capability.

WEAPON SYSTEMS STABILITY

Senator LEVIN. In our discussions on procurement reform within the Procurement Subcommittee we have often heard discussed the need for increased program stability and improved projections of "downstream affordability." Clearly this implies multiyear program planning, multiyear authorizations and possibly even multiyear appropriations. Today, the Congress reviews programs on a year-to-year basis to accommodate the congressional budgeting cycle. Is there another meaure that Congress could adopt as part of its oversight responsibility that would provide a better means for Congress to evaluate the progress of the programs? Should Congress take a more active role in reviewing the number of production lines that contractors should be permitted to open and maintain? Could tracking done along DSARC lines be appropriate and productive?

What contraols should Congress impose on the Department in exchange for multiyear contracting authority, or multiyear authorizations, or even multiyear appropriations?

Secretary WEINBERGER. The Department currently engages in multiyear program planning. The Five Year Defense Program (FYDP) is a reflection of this multiyear planning. The private sector is just beginning to do the kind of long range budget planning done by the Department with the current emphasis on strategic planning. Even this private sector strategic planning is not done at the detailed level of the FYDP. It is true that FYDP programs change over time. Such flexibility is essential to proper management. Programs should be flexible enough to respond to changes in threat, general economic conditions, priority, or test and development schedules. There are more arbitrary adjustments that the Department strives to avoid. Our efforts are apparent in our acquisition initiatives such as program stability, multiyear procurement and economic production. During this administration we have initiated multiyear procurement programs and economic production rates, which are saving over $7 billion. We plan to continue our efforts in this area with multiyear procurement programs proposed in the fiscal year 1986 budget offering savings of $1.3 billion.

I do not believe that additional congressional reviews or reviews at different times would improve congressional oversight. A program cannot proceed without funding. Therefore, the annual budget process affords the Congress the ideal opportunity to evaluate the progress of programs. Similarly, the annual budget process provides the opportunity for DARC type program tracking. The Congress probably should review program budgets most carefully at the points of DSARC milestones. The DSARC milestones are the most critical program decision points because they constitute approvals to enter full scale development or production. However, the budget contains the funds to support these decisions and Congress can impact these decisions through budget adjustments. Similarly, the annual budget process provides an opportunity to monitor the number of production lines being opened and maintained. The Department tries to eliminate programs and production lines that are not required or are only marginally required.

Congress already maintains extensive controls over multiyear procurement programs. The Department cannot award a multiyear contract for a major system unless specifically approved in the appropriation act. The Department cannot award a multiyear contract that has either an economic order qauntity or an unfunded contingent liability in excess of $20 million without notifying Congress. At the time of contract award the Department must provide Congress with a set of revised multiyear budget exhibits reflecting the actual contract details. If the savings are estimated to be lower at the time of multiyear contract award than justified in the budget, the contract cannot be awarded without congressional notification. There are additional controls and reporting requirements with which we are complying such as additional justification for programs with savings of less than 10 percent and revised justification for multiyear programs that are adjusted after approval of the multiyear program. These controls already require so much management and paperwork that they are a major hindrance to more extensive use of multiyear contracting and, if anything, the number and extent of congressional controls should be reduced.

COMPENSATION AS ELEMENT OF CONTRACT COST

Senator LEVIN. For more than 5 years the Department of Defense has been trying to change a regulation to allow auditors to examine the "reasonableness" of individual elements of compensation in order to determine proper compensation charges on negotiated contracts. According to one 1982 Air Force Systems Command study, aerospace executive compensation was 30% higher than compensation for executives in durable goods manufacturing. Further, in October 1984, the GAO released a study explaining that executive pay (including salary and bonuses) averaged 42% higher in the aerospace industry than in comparably sized firms within the American Manufacturer's Association.

Recent congressional testimony indicates that this proposed regulation is still being debated within the DOD. What steps will you take to ensure that DOD buyers and auditors have the benefit of this too to do their jobs more effectively?

Secretary WEINBERGER. Our regulations were changed by Defense Acquisition Circular No. 76-43 dated March 22, 1983, to allow the Government to challenge the reasonableness of an individual element of compensation where costs are excessive in comparison with compensation paid by other firms of the same size, same industry, or in the same geographic area for similar services.

COMPETITION

Senator LEVIN. Will you submit for the record the percentages on competition from the last 5 years broken down by service contract actions, and contract dollars? Will you also include the same categories for follow-on contracts, and noncompetitive purchases?

Secretary WEINBERGER. The information follows:

Net Value of DoD Procurements by Extent of Competition According to Defense Component FY 1983-FY 1984[A]

TYPE OF COMPETITION	NET VALUE (IN THOUSANDS)											
	TOTAL B/				ARMY				NAVY			
	OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
TOTAL	$146,031,610		$140,482,972		$33,398,978		$29,893,276		$45,431,034		$48,656,407	
INTRAGOVENMENTAL/FMS	10,098,082		9,902,800		2,635,791		2,807,835		3,355,004		3,103,744	
OTHER EXCLUSIONS C/	11,567,463		10,377,002		2,920,544		2,525,806		2,788,617		2,543,479	
TOTAL, EXCEPT ABOVE EXCLUSIONS	124,366,055	100.0	120,203,170	100.0	27,842,643	100.0	24,559,635	100.0	39,287,413	100.0	43,009,184	100.0
FORMALLY ADVERTISED	6,773,772	5.5	7,109,874	5.9	2,801,152	10.1	2,662,631	10.8	1,263,446	3.2	1,221,775	2.8
NEGOTIATED PRICE COMPETITION	34,970,936	28.1	29,270,033	24.4	6,754,569	24.3	5,344,165	21.8	9,874,660	25.1	7,699,101	17.9
DESIGN OR TECHNICAL COMPETITION	11,633,861	9.4	11,464,049	9.5	2,217,729	8.0	2,202,247	9.0	3,376,009	8.6	3,867,061	9.0
FOLLOW-ON AFTER PRICE COMPETITION	4,141,597	3.3	3,012,232	2.5	904,399	3.3	247,177	1.0	2,229,808	5.7	2,151,564	5.0
FOLLOW-ON AFTER DESIGN/TECHNICAL COMPETITION	31,616,140	25.4	27,461,800	22.9	5,034,086	18.1	2,408,564	9.8	6,621,532	16.9	8,463,171	19.7
CATALOG OR MARKET PRICE	931,222	0.8	1,418,332	1.2	230,737	0.8	146,284	0.6	92,048	0.2	86,157	0.2
NON-COMPETITIVE	34,298,527	27.6	40,466,050	33.7	9,899,942	35.6	11,548,567	47.0	15,827,894	40.3	19,521,368	45.4

TYPE OF COMPETITION	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
	OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
TOTAL	$46,639,265		$41,436,245		$14,884,061		$15,196,238		$1,853,348		$1,948,542	
INTRAGOVENMENTAL/FMS	3,516,378		3,404,194		274,253		325,774		66,871		58,300	
OTHER EXCLUSIONS C/	3,604,314		3,454,908		933,793		800,188		165,679		132,286	
TOTAL, EXCEPT ABOVE EXCLUSIONS	39,518,583	100.0	34,577,143	100.0	13,676,015	100.0	14,070,276	100.0	1,620,798	100.0	1,757,976	100.0
FORMALLY ADVERTISED	317,069	0.8	408,512	1.2	1,471,870	10.8	1,716,446	12.2	896,880	55.3	1,076,584	61.2
NEGOTIATED PRICE COMPETITION	6,484,352	16.4	5,699,136	16.5	10,856,073	79.[illegible]	9,537,737	67.8	563,718	34.8	529,106	30.1
DESIGN OR TECHNICAL COMPETITION	5,583,303	14.1	5,081,774	14.7	524-	0.[illegible]	6,615	0.1	58,270	3.6	33,243	1.9
FOLLOW-ON AFTER PRICE COMPETITION	901,047	2.3	552,807	1.6	1,079	*	28,560	0.2	2,040	0.1	5,947	0.3
FOLLOW-ON AFTER DESIGN/TECHNICAL COMPETITION	19,819,817	50.2	16,513,858	47.8	126	0.0	3,823	*	4,010	0.3	701	*
CATALOG OR MARKET PRICE	162,131	0.4	112,826	0.3	312,341	2.3	1,042,768	7.4	2,537	0.2	1,199	0.1
NON-COMPETITIVE	6,271,074	15.9	6,208,230	18.0	1,032,860	7.6	1,734,226	12.3	95,344	5.9	111,187	6.3

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE.
B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE.
C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE.

Net Value of DoD Procurement by Extent of Competition According to Defense Component FY 1983-FY 1984A

TYPE OF COMPETITION	NUMBER OF PROCUREMENT ACTIONS											
	OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83		OCT 83 - SEP 84		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	TOTAL B/				ARMY				NAVY			
TOTAL	14,770,588		14,786,546		4,603,637		4,323,888		3,008,005		3,571,826	
INTRAGOVERNMENTAL/FMS	1,136,425		1,114,330		418,240		345,615		279,703		284,307	
OTHER EXCLUSIONS C/	4,058,799		3,766,484		1,160,824		1,020,961		1,339,232		1,436,296	
TOTAL, EXCEPT ABOVE EXCLUSIONS	9,576,366	100.0	9,906,721	100.0	3,024,573	100.0	2,957,463	100.0	1,389,070	100.0	1,851,822	100.0
FORMALLY ADVERTISED	668,979	7.0	629,162	6.4	61,216	2.0	48,967	1.7	78,516	5.7	87,883	4.8
NEGOTIATED PRICE COMPETITION	5,348,898	55.8	4,813,754	48.7	1,657,320	54.8	1,407,052	47.6	609,226	43.9	644,061	34.8
DESIGN OR TECHNICAL COMPETITION	24,113	0.3	18,262	0.2	9,656	0.3	4,367	0.2	11,114	0.8	7,388	0.4
FOLLOW-ON AFTER PRICE COMPETITION	3,602	*	3,437	*	1,259	*	1,063	*	1,067	0.1	1,106	0.1
FOLLOW-ON AFTER DESIGN/TECHNICAL COMPETITION	14,753	0.2	14,227	0.1	1,304	*	794	*	2,927	0.2	3,219	0.2
CATALOG OR MARKET PRICE	4,702	0.1	4,411	*	919	*	721	*	887	0.1	781	*
NON-COMPETITIVE	3,514,937	36.7	4,403,458	44.5	1,296,801	42.9	1,494,499	50.5	685,831	49.4	1,107,441	59.8
	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
TOTAL	5,106,265		4,897,392		1,381,705		1,299,833		557,230		566,635	
INTRAGOVERNMENTAL/FMS	327,620		344,428		46,328		62,232		40,804		47,443	
OTHER EXCLUSIONS C/	1,386,147		1,186,701		26,970		65,023		131,286		62,664	
TOTAL, EXCEPT ABOVE EXCLUSIONS	3,392,498	100.0	3,366,263	100.0	1,307,807	100.0	1,172,578	100.0	385,141	100.0	456,528	100.0
FORMALLY ADVERTISED	507,179	15.0	469,488	14.0	15,810	1.2	16,000	1.4	2,983	0.8	6,763	1.3
NEGOTIATED PRICE COMPETITION	2,130,192	62.8	2,046,011	60.8	856,934	65.5	619,476	52.8	71,016	18.4	66,932	15.0
DESIGN OR TECHNICAL COMPETITION	8,047	0.2	8,572	0.2	19	0.0	16	0.0	666	0.2	482	0.1
FOLLOW-ON AFTER PRICE COMPETITION	1,474	*	1,111	*	14	0.0	27	0.0	16	0.0	44	*
FOLLOW-ON AFTER DESIGN/TECHNICAL COMPETITION	10,288	0.3	10,002	0.3	2	0.0	20	0.0	11	0.0	8	0.0
CATALOG OR MARKET PRICE	884	*	719	*	1,479	0.1	2,049	0.2	16	0.0	20	0.0
NON-COMPETITIVE	733,438	21.6	832,861	24.7	434,283	33.2	534,980	45.6	310,386	80.6	383,236	83.8

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE.
B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE.
C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE.

Net Value of DOD Procurements by Type of Competition, According to Defense Component: FY 1982-FY 1983A

TYPE OF COMPETITION	NET VALUE (IN THOUSANDS)											
	OCT 81 - SEP 82		OCT 82 - SEP 83		OCT 81 - SEP 82		OCT 82 - SEP 83		OCT 81 - SEP 82		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	TOTAL B/				ARMY				NAVY			
TOTAL	$124,764,875		$140,482,972		$29,744,847		$29,893,276		$39,776,186		$48,658,407	
INTRAGOVERNMENTAL AND FMS	12,795,040		9,902,800		4,759,035		2,807,635		2,811,326		3,105,744	
OTHER EXCLUSIONS C/	9,150,099		10,377,002		2,278,408		2,525,806		1,894,098		2,543,478	
TOTAL, EXCEPT ABOVE EXCLUSIONS	102,819,736	100.0	120,203,170	100.0	22,707,404	100.0	24,559,835	100.0	35,070,762	100.0	43,009,184	100.0
COMPETITIVE (SUB-TOTAL)	42,221,731	41.1	47,844,756	39.8	9,151,986	40.3	10,209,243	41.6	9,376,027	26.7	12,787,937	29.7
FORMALLY ADVERTISED	7,479,776	7.3	7,109,874	5.9	2,828,453	12.4	2,662,831	10.8	1,191,980	3.4	1,221,775	2.8
OTHER PRICE COMPETITION	26,537,086	25.8	29,270,033	24.4	4,487,961	19.8	5,344,165	21.8	6,317,908	18.0	7,699,101	17.9
DESIGN OR TECHNICAL COMPETITION	8,204,869	8.0	11,464,849	9.5	1,835,572	8.1	2,202,247	9.0	1,866,139	5.3	3,867,061	9.0
NON-COMPETITIVE (SUB-TOTAL)	60,598,005	58.9	72,358,414	60.2	13,555,418	59.7	14,350,592	58.4	25,694,735	73.3	30,221,247	70.3
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	26,284,183	25.6	30,474,032	25.4	2,443,072	10.8	2,636,741	10.8	10,645,999	30.4	10,604,735	24.7
CATALOG OR MARKET PRICE (OVER $25,000 ONLY)	1,847,974	1.8	1,418,332	1.2	184,836	0.8	145,284	0.6	143,627	0.4	95,157	0.2
OTHER NON-COMPETITIVE	32,465,848	31.6	40,466,050	33.7	10,927,510	48.1	11,568,567	47.0	14,905,109	42.5	19,521,355	45.4

TYPE OF COMPETITION	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
TOTAL	$34,732,375		$41,436,245		$15,998,858		$15,196,238		$1,958,814		$1,948,542	
INTRAGOVERNMENTAL AND FMS	4,724,040		3,404,194		248,422		325,774		52,151		58,300	
OTHER EXCLUSIONS C/	3,240,662		3,454,908		781,236		800,188		143,690		132,266	
TOTAL, EXCEPT ABOVE EXCLUSIONS	26,767,673	100.0	34,577,143	100.0	14,969,200	100.0	14,070,276	100.0	1,762,973	100.0	1,757,976	100.0
COMPETITIVE (SUB-TOTAL)	9,167,404	34.3	11,189,422	32.4	12,300,804	82.2	11,262,800	80.1	1,636,072	92.8	1,638,932	93.2
FORMALLY ADVERTISED	273,799	1.0	408,512	1.2	2,014,204	13.5	1,718,448	12.2	1,159,308	65.8	1,076,584	61.2
OTHER PRICE COMPETITION	4,685,597	17.5	5,699,136	16.5	10,278,258	68.7	9,537,737	67.8	446,473	25.3	529,105	30.1
DESIGN OR TECHNICAL COMPETITION	4,208,008	15.7	5,081,774	14.7	8,342	0.1	6,615	0.1	30,291	1.7	33,243	1.9
NON-COMPETITIVE (SUB-TOTAL)	17,600,269	65.7	23,387,721	67.6	2,668,396	17.8	2,807,476	20.0	126,901	7.2	119,044	6.8
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	13,019,217	48.6	17,066,666	49.4	201-	0.0	30,483	0.2	2,987	0.2	6,657	0.4
CATALOG OR MARKET PRICE (OVER $25,000 ONLY)	123,022	0.5	112,825	0.3	1,361,167	9.1	1,042,768	7.4	2,127	0.1	1,190	0.1
OTHER NON-COMPETITIVE	4,458,030	16.7	6,208,230	18.0	1,307,430	8.7	1,734,225	12.3	121,787	6.9	111,197	6.3

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE.
B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE.
C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE.

Net Value of DOD Procurements by Type of Competition, According to Defense Component: FY 1982-FY 1983A

TYPE OF COMPETITION	NUMBER OF PROCUREMENT ACTIONS							
	TOTAL B/				ARMY			
	OCT 81 - SEP 82		OCT 82 - SEP 83		OCT 81 - SEP 82		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
TOTAL	12,962,728		14,766,545		4,144,100		4,323,689	
INTRAGOVERNMENTAL AND FMS	934,626		1,114,330		330,129		345,615	
OTHER EXCLUSIONS C/	2,597,184		3,765,484		951,187		1,020,591	
TOTAL, EXCEPT ABOVE EXCLUSIONS	9,430,918	100.0	9,886,731	100.0	2,862,784	100.0	2,957,483	100.0
COMPETITIVE (SUB-TOTAL)	4,956,330	52.6	5,461,198	55.2	1,399,665	48.9	1,460,406	49.4
FORMALLY ADVERTISED	584,685	6.2	629,162	6.4	54,061	1.9	48,967	1.7
OTHER PRICE COMPETITION	4,351,460	46.1	4,813,754	48.7	1,341,018	46.8	1,407,052	47.6
DESIGN OR TECHNICAL COMPETITION	20,185	0.2	18,282	0.2	4,586	0.2	4,387	0.2
NON-COMPETITIVE (SUB-TOTAL)	4,474,588	47.5	4,425,533	44.8	1,463,119	51.1	1,497,077	50.6
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	29,971	0.3	17,664	0.2	2,596	0.1	1,857	0.1
CATALOG OR MARKET PRICE (OVER $25,000 ONLY)	10,003	0.1	4,411	*	1,725	0.1	721	*
OTHER NON-COMPETITIVE	4,434,614	47.0	4,403,458	44.5	1,458,798	51.0	1,494,499	50.5

TYPE OF COMPETITION	NAVY			
	OCT 81 - SEP 82		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT
TOTAL	2,341,584		3,581,528	
INTRAGOVERNMENTAL AND FMS	170,004		294,307	
OTHER EXCLUSIONS C/	317,819		1,435,298	
TOTAL, EXCEPT ABOVE EXCLUSIONS	1,853,761	100.0	1,851,922	100.0
COMPETITIVE (SUB-TOTAL)	553,389	29.9	739,373	39.9
FORMALLY ADVERTISED	41,165	2.2	87,883	4.8
OTHER PRICE COMPETITION	503,634	27.2	644,091	34.8
DESIGN OR TECHNICAL COMPETITION	8,590	0.5	7,399	0.4
NON-COMPETITIVE (SUB-TOTAL)	1,300,372	70.2	1,112,549	60.1
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	5,055	0.3	4,327	0.2
CATALOG OR MARKET PRICE (OVER $25,000 ONLY)	2,472	0.1	781	*
OTHER NON-COMPETITIVE	1,292,845	69.7	1,107,441	59.8

TYPE OF COMPETITION	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
	OCT 81 - SEP 82		OCT 82 - SEP 83		OCT 81 - SEP 82		OCT 82 - SEP 83		OCT 81 - SEP 82		OCT 82 - SEP 83	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
TOTAL	4,594,033		4,867,392		1,212,462		1,299,833		539,668		588,665	
INTRAGOVERNMENTAL AND FMS	316,763		344,426		60,031		62,232		36,516		47,443	
OTHER EXCLUSIONS C/	1,180,438		1,156,701		57,840		65,023		65,242		82,694	
TOTAL, EXCEPT ABOVE EXCLUSIONS	3,096,832	100.0	3,366,265	100.0	1,094,591	100.0	1,172,578	100.0	437,910	100.0	458,528	100.0
COMPETITIVE (SUB-TOTAL)	2,235,754	72.2	2,521,872	74.9	676,206	61.8	635,492	54.2	63,988	14.6	75,217	16.4
FORMALLY ADVERTISED	461,010	14.9	469,489	14.0	20,130	1.8	16,000	1.4	7,685	1.8	5,783	1.3
OTHER PRICE COMPETITION	1,768,860	57.1	2,046,811	60.8	656,023	59.9	619,476	52.8	55,684	12.7	68,982	15.0
DESIGN OR TECHNICAL COMPETITION	5,884	0.2	5,572	0.2	53	0.0	16	0.0	619	0.1	452	0.1
NON-COMPETITIVE (SUB-TOTAL)	861,078	27.8	844,393	25.1	418,385	38.2	537,086	45.8	373,922	85.4	383,311	83.6
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	21,596	0.7	11,113	0.3	70	*	47	0.0	43	*	53	*
CATALOG OR MARKET PRICE (OVER $25,000 ONLY)	1,615	0.1	719	*	3,673	0.3	2,049	0.2	27	*	20	0.0
OTHER NON-COMPETITIVE	837,867	27.1	832,561	24.7	414,642	37.9	534,990	45.6	373,852	85.4	383,238	83.6

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE.
B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE.
C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE.

COMPETITION IN PROCUREMENT A/

NET VALUE (IN THOUSANDS)

TYPE OF COMPETITION	FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	TOTAL B/				ARMY				NAVY			
TOTAL	$83,686,442		$105,222,886		$18,654,131		$24,058,413		$25,371,392		$29,894,304	
INTRAGOVERNMENTAL AND FMS	10,159,600		9,798,208		3,898,952		3,660,536		1,624,006		2,072,680	
OTHER EXCLUSIONS C/	3,780,938		7,225,417		710,245		2,061,832		1,095,417		807,748	
TOTAL, EXCEPT ABOVE EXCLUSIONS	69,745,904	100.0	88,199,261	100.0	14,044,934	100.0	18,336,045	100.0	22,651,969	100.0	27,013,876	100.0
COMPETITIVE (SUB-TOTAL)	25,134,176	36.0	35,915,144	40.7	5,445,039	38.8	7,147,835	39.0	6,868,490	30.3	7,001,838	25.9
FORMALLY ADVERTISED	5,595,102	8.0	6,962,098	7.9	1,499,633	10.7	2,179,537	11.9	1,299,310	5.7	1,352,191	5.0
OTHER PRICE COMPETITION	13,811,875	19.8	22,471,365	25.5	2,912,573	20.7	3,685,236	20.1	4,091,281	18.1	4,282,365	15.9
DESIGN OR TECHNICAL COMPETITION	5,727,199	8.2	6,481,681	7.4	1,032,833	7.4	1,283,062	7.0	1,477,899	6.5	1,367,282	5.1
NON-COMPETITIVE (SUB-TOTAL)	44,611,728	64.0	52,284,117	59.3	8,599,895	61.2	11,188,210	61.0	15,783,479	69.7	20,012,038	74.1
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	14,673,400	21.0	20,775,513	23.6	2,003,485	14.3	2,701,832	14.7	4,242,818	18.7	7,024,947	26.0
CATALOG OR MARKET PRICE (OVER $10,000 ONLY)	0	0.0	2,985,433	3.4	0	0.0	104,108	0.6	0	0.0	75,748	0.3
OTHER NON-COMPETITIVE	29,938,328	42.9	28,523,171	32.3	6,596,410	47.0	8,382,270	45.7	11,540,661	51.0	12,911,343	47.8
	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
TOTAL	$24,681,122		$29,131,660		$11,262,087		$17,991,526		$1,944,484		$2,056,817	
INTRAGOVERNMENTAL AND FMS	4,252,227		3,677,412		220,895		221,110		60,223		43,302	
OTHER EXCLUSIONS C/	1,083,136		2,765,978		220,669		738,255		84,215		166,819	
TOTAL, EXCEPT ABOVE EXCLUSIONS	19,345,759	100.0	22,688,270	100.0	10,820,523	100.0	17,032,161	100.0	1,800,046	100.0	1,846,696	100.0
COMPETITIVE (SUB-TOTAL)	6,403,692	33.1	7,668,791	33.8	4,423,876	40.9	11,938,499	70.1	1,580,367	87.8	1,689,142	91.5
FORMALLY ADVERTISED	276,769	1.4	294,063	1.3	1,332,671	12.3	1,891,150	11.1	1,174,826	65.3	1,234,432	66.9
OTHER PRICE COMPETITION	3,078,803	15.9	3,738,649	16.5	3,086,337	28.5	10,041,064	59.0	379,117	21.1	432,416	23.4
DESIGN OR TECHNICAL COMPETITION	3,048,120	15.8	3,636,079	16.0	4,868	0.1	6,285	*	26,424	1.5	22,294	1.2
NON-COMPETITIVE (SUB-TOTAL)	12,942,067	66.9	15,019,479	66.2	6,396,647	59.1	5,093,662	29.9	219,679	12.2	157,554	8.5
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	8,246,411	42.6	10,809,320	47.6	19,919	0.2	5,633	*	2,671	0.2	5,134	0.3
CATALOG OR MARKET PRICE (OVER $10,000 ONLY)	0	0.0	93,509	0.4	0	0.0	2,691,347	15.8	0	0.0	1,040	0.1
OTHER NON-COMPETITIVE	4,695,656	24.3	4,116,650	18.1	6,376,728	58.9	2,396,682	14.1	217,008	12.1	151,380	8.2

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE
B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE
C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE

COMPETITION IN PROCUREMENT A/

NUMBER OF PROCUREMENT ACTIONS

TYPE OF COMPETITION	FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	TOTAL B/				ARMY				NAVY			
TOTAL	12,071,805		12,745,953		3,651,179		3,881,584		2,379,818		2,533,737	
INTRAGOVERNMENTAL AND FMS	832,049		901,422		296,348		295,123		171,713		176,693	
OTHER EXCLUSIONS C/	19,840		2,291,856		7,737		913,056		3,463		262,236	
TOTAL, EXCEPT ABOVE EXCLUSIONS	11,119,916	100.0	9,552,675	100.0	3,347,094	100.0	2,673,405	100.0	2,204,642	100.0	2,094,808	100.0
COMPETITIVE (SUB-TOTAL)	4,412,987	39.7	4,594,806	48.1	974,176	29.1	1,081,660	40.5	550,009	25.0	601,675	28.7
FORMALLY ADVERTISED	610,705	5.5	629,867	6.6	59,541	1.8	50,176	1.9	58,468	2.7	53,525	2.6
OTHER PRICE COMPETITION	3,789,476	34.1	3,949,835	41.4	912,215	27.3	1,028,171	38.5	486,623	22.1	542,544	25.9
DESIGN OR TECHNICAL COMPETITION	12,806	0.1	15,104	0.2	2,420	0.1	3,313	0.1	4,918	0.2	5,606	0.3
NON-COMPETITIVE (SUB-TOTAL)	6,708,929	60.3	4,958,069	51.9	2,372,918	70.9	1,591,745	59.5	1,654,633	75.1	1,493,133	71.3
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	28,066	0.2	28,853	0.3	1,617	0.1	1,962	0.1	5,311	0.2	5,283	0.3
CATALOG OR MARKET PRICE (OVER $10,000 ONLY)	0	0.0	5,845	0.1	0	0.0	952	*	0	0.0	1,254	0.1
OTHER NON-COMPETITIVE	6,680,863	60.1	4,923,371	51.5	2,371,301	70.8	1,588,831	59.4	1,649,322	74.8	1,486,596	71.0

TYPE OF COMPETITION	FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981		FISCAL YEAR 1980		FISCAL YEAR 1981	
	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
	AIR FORCE				DEFENSE LOGISTICS AGENCY				CIVIL FUNCTIONS			
TOTAL	4,250,611		4,430,886		1,189,748		1,254,044		505,416		543,467	
INTRAGOVERNMENTAL AND FMS	346,482		322,910		67,309		52,700		34,573		37,134	
OTHER EXCLUSIONS C/	6,955		1,013,254		198		34,447		635		61,648	
TOTAL, EXCEPT ABOVE EXCLUSIONS	3,897,174	100.0	3,094,722	100.0	1,122,241	100.0	1,166,897	100.0	470,208	100.0	444,685	100.0
COMPETITIVE (SUB-TOTAL)	2,137,618	54.9	2,099,872	67.9	674,691	60.1	723,135	62.0	51,911	11.0	62,844	14.1
FORMALLY ADVERTISED	466,181	12.0	495,132	16.0	20,109	1.8	22,362	1.9	5,527	1.2	7,806	1.8
OTHER PRICE COMPETITION	1,666,821	42.8	1,599,541	51.7	654,564	58.3	700,754	60.1	45,838	9.8	54,349	12.2
DESIGN OR TECHNICAL COMPETITION	4,616	0.1	5,199	0.2	18	0.0	19	0.0	546	0.1	689	0.2
NON-COMPETITIVE (SUB-TOTAL)	1,759,556	45.2	994,850	32.2	447,550	39.9	443,762	38.0	418,297	89.0	381,841	85.9
FOLLOW-ON AFTER PRICE OR DESIGN COMPETITION	18,673	0.5	21,017	0.7	51	0.0	43	0.0	39	*	68	*
CATALOG OR MARKET PRICE (OVER $10,000 ONLY)	0	0.0	1,115	*	0	0.0	2,258	0.2	0	0.0	18	0.0
OTHER NON-COMPETITIVE	1,740,883	44.7	972,718	31.4	447,499	39.9	441,461	37.8	418,258	89.0	381,755	85.9

A/ FOR DEFINITIONS AND COVERAGE, SEE NOTES ON COVERAGE.

B/ INCLUDES OTHER DEFENSE AGENCY AWARDS NOT INCLUDED ELSEWHERE IN THIS TABLE.

C/ INCLUDES AWARDS FOR EDUCATIONAL AND NON-PROFIT INSTITUTIONS, UTILITIES, THE 8A PROGRAM AND BRAND NAME ITEMS FOR COMMISSARY RESALE.

Statistical Notes

- Procurement statistics are reported for any obligation of funds for a contract or modification to a contract. Actions over $25,000 are individually reported (e.g., name of contractor, federal supply classification, etc.). Actions under $25,000 are reported in summary by each reporting activity. The competitive base excludes actions under FMS agreements and intragovernmental actions.

- FY 1980 and all subsequent years exclude transactions with educational and nonprofit institutions and transactions for utility services. FY 1980 and all subsequent years include Corps of Engineers transactions for civil functions.

- FY 1981 and all subsequent years exclude SBA 8(a) awards and brand name items for commissary resale.

Competition Includes:

- Price Competition - Two or more offers were received and award was made to the lowest responsive and responsible offeror.

- Technical & Design Competition - Two or more offers were received and award was made to the offeror with the best overall technical and design proposal. Cost is usually one of the factors in the evaluation. Sources for most major weapon systems result from initial competition in the design and development stage.

Follow-on to Competition Includes:

- Follow-on After Price Competition - Contract award for the same item to a source initially established in a prior year based on price competition.

- Follow-on After Technical & Design Competition - Contract award for the same item to a source initially established in a prior year based on technical and design competition. For example, F-15, F-16, and M-1 weapon system production contracts flow to sources initially established in technical and design competition.

Noncompetitive Includes:

- Noncompetitive - Single-source awards because there is only one source--e.g., Trident missile, aircraft carrier, etc.--or no competitive offers were received.

- Catalog/Market Price - Items (commercial type) purchased at catalog or market prices where the price has been established in the commercial marketplace. Prices paid are less discounts appropriate for wholesale buyer.

POST-EMPLOYMENT CONFLICTS OF INTEREST

Senator LEVIN. The current Ethics in Government Act restricts former government employees from appearing before the government with intent to influence on the same particular matter involving a specific party or parties that the former government employee handled during his government service. However, last year I was very concerned about the appearance created when we learned that the top Air Force person on location at the Hughes plant, in Tucson, had retired and immediately started work for the same plant he had been charged with monitoring.

What is your view of the appearance created when persons with such responsibility leave government service to work for the same contractor they were supposed to monitor? Would you agree that the appearance problem arises in far more cases than those covered by the current statute?

Secretary WEINBERGER. It is distressing when any of our personnel, civilian or military, violate standards of conduct laws or regulations. We are reviewing the application of these standards within the Department to identify flaws in the program that should be corrected.

Some of the problems we have in this area result from widely varying public perceptions of what the standards are and what they should be. This makes the standard of "appearance of impropriety" an elusive one. For example, there are persons who suggest that it is inappropriate for a former DOD person to accept any employment with any DOD contractor. The law, however, is not that restrictive.

During the 2 years before the enactment of the Ethics in Government Act in 1979, exhaustive hearings were held by various Congressional Committees. These resulted in revised postemployment standards that strictly limited opportunities of former officers or employees, particularly senior officials, to influence Government agencies on matters they had dealt with or that had been under their responsibility while in government service. These criteria do not prevent individuals from continuing to work in areas in which they have developed skills. The Department of Defense endorses this approach.

This Department will continue to enforce the statutory provisions and DOD regulations which implement the law.

PUBLIC RELATIONS COSTS

Senator LEVIN. Four times during the 1960s and 1970s the Armed Services Procurement Regulation Subcommittee considered the issue of allowability of contractors public relations costs. To date the DOD has not taken action to block at least some of these costs from being reimbursable in defense contracts. Supposedly USDRE plan to seek inclusion of a new regulation in the FAR or DOD supplement thereto, in the near future. Will you provide for the record a list of the numerous types of "public relations" activities that will be allowed by your new proposal, as well as those types of activities that will not be allowed? Is it true that under your draft costs incurred at the Paris Air Show will be reimbursable costs?

Secretary WEINBERGER. (a) Our draft regulation provides that the following types of public relations costs are allowable:

Responding to inquiries on company policies and activities, communicating with the public, press, stockholders, creditors, and customers and conducting general liaison with news media and Government public relations offices.

Costs of certain membership in civic and community organizations.

Community service activities.

Costs of plant tours.

Costs of keel laying, ship launching, commissioning, and roll-out ceremonies to the extent provided for by contract.

Our draft regulation provides that the following are unallowable:

All public relations costs other than specified above whose primary purpose is to obtain favorable publicity.

Costs related to sales promotions.

Costs of air shows and other special events including costs of displays, demonstrations, exhibits, and salaries and wages of employees engaged in setting up and displaying exhibits, making demonstrations, and providing briefings.

Costs of sponsoring activities that primarily enhance the image of the company.

Costs of promotional material, motion pictures, etc., designed to call favorable attention to the company.

Costs of souvenirs, models, etc., provided to the public.

(b) The draft regulation provides that costs of air shows including certain support costs such as costs of displays, demonstrations exhibits and salaries are unallowable.

EXTRAORDINARY CONTRACTUAL RELIEF

Senator Levin. During fiscal year 1983 and 1984 how many times had DOD or any of the Services made use of the powers granted for extraordinary contractual relief under Public Law 85-804? For each of these instances will you provide the dollar amount of such relief, the company receiving the relief, and the reasons for extending the relief?

How does DOD interpret "facilitating national defense" when it grants P.L. 85-804?

Secretary Weinberger. (a) Section 4(a) of Public Law 85-804 requires that DOD submit to Congress annually by March 15th a report of actions taken on requests for relief under the Act's authority. The report for 1984 is currently not available but will be provided to Congress by March 15th. In 1983 the Department granted extraordinary contractual relief in four cases.

(b) The details of the four cases in (a) above are as follows:

Number of actions	Amount	Company	Reason
1	$1,821,258	Wayne H. Coloney Co., Inc	Amendment without consideration to a small business firm. The relief was primarily based on the avoidance of an estimated $8.6 million in reprocurement costs, if Coloney remained a viable government contractor.
1	10,125	(1)	Correction of mistakes.
1	47,988	(1)	Formalization of informal commitments.
1	805	(1)	Formalization of informal commitments.

[1] Details of reasons and company names not maintained at OSD level for actions under $50,000.

(c) The general policy set forth in FAR 50.102 provides that the authority conferred by the Act shall not be utilized so as to encourage carelessness and laxity on the part of persons engaged in the defense effort nor be relied upon by a Military Department when other adequate legal authority exists in the department. In addition, the actions authorized under the Act shall be processed as expeditiously as practicable consistent with the car, restraint, and exercise of sound judgment, appropriate to such extraordinary authority. FAR 50.300 contains standards for deciding cases. Whether, in a particular case, an award will facilitate the national defense is a matter of sound judgment to be made on the basis of all of the facts of such case. Although it is impossible to predict or enumerate all the types of cases with respect to which action may be appropriate, examples of certain cases or types of cases where action may be proper are set forth in FAR 50.302-1 through 50.302-3. For example, FAR 50.302-1(a) provides that where an actual or threatened loss under a defense contract, however caused, will impair the productive ability of a contractor whose continued performance on any defense contract or whose continued operation as a source of supply is found to be essential to the national defense, the contract may be adjusted but only to the extent necessary to avoid such impairment to the contractor's productive ability.

DEBARMENT AND SUSPENSION

Senator Levin. Would you provide for the record the number of debarment and suspension actions taken by the DOD by service over the last 3 years?

Secretary Weinberger. Suspension and debarment procedures have been in long use to protect the interest of the government by excluding business concerns and individuals from receiving federal contracts due to a lack of business integrity or noncompliance with law or regulations. Under this administration, the suspension and debarment procedures have been given new vigor. Uniform standards for suspending and debarring organizations and individuals have been established. The Inspector Generals have pursued application of this remedy in their efforts to control waste, fraud and abuse. Within DOD, the number of suspensions and debarments have risen dramatically, as shown in the following figures for the last 3 calendar years:

Year	Defense Logistics Agency	Army	Navy	Air Force	Total
1984	216	104	100	34	454
1983	150	68	52	47	317
1982	55	72	14	22	163

TANKS

Senator LEVIN. What is the number of tanks released from active and reserve component stocks over the last 10 years for the purpose of Foreign Military Sales, leases or the Military Assistance Program? It is accurate to state that without these exports the active and reserve components' stocks would meet their present requirement? Over the last 10 years, what sales or other exports of tanks from the active and reserves component stocks were conducted to meet a serious and time critical emergency in the recipient country? Please explain the circumstances of each such emergency.

Secretary WEINBERGER. Over the last 10 years 3,247 tanks have been provided to foreign customers from Army stocks; 3,024 M48 series, (of which only 482 were M48A5), 223 M60 series. No, even though all the M60 series have been repaid to Army, we would still be below the present requirement. Shipments to Yemen, Thailand, and Lebanon were to meet serious or time critical requirements. Specifically the threat to the Yemen Arab Republic from the Peoples Democratic Republic of Yemen, the Cambodian border problem in Thailand, and the Lebanese civil strife.

Senator LEVIN. Have previous plans to close the M-60 production line been implemented? If not, when is it contemplated that this production line will close? What is the number of M-60 type tanks that the Defense Department expects to make available to foreign nations in fiscal years 1985, 1986 and beyond? M-48 type tanks? Were all such sales to come from an ongoing M-60 production line? What would be the unit price for foreign purchasers? Can any of these forseen sales be characterized as meeting an emergency requirement in the recipient country?

Secretary WEINBERGER. We have not yet implemented any plans to close the M-60 production line. Foreign sales of M-60 hulls have extended the life of the line until later this year. However, production of M-6 turrets was stopped sometime ago and this would cause a production line break. We will completely close the line after completion of current foreign military sales production. The only firm commitments for fiscal years 1985, 1986, or 1987 currently on funded FMS cases are 194 M60A3 tanks, 10 M48A5 tanks, and 140 M60A3 hulls. All these deliveries will occur in 1985. Furture prices cannot be accurately determined at this time since the price is dependent on time of production line break and quantity of tanks ordered. Start up estimates range from 45 to 50 million dollars which would be pro-rated over any new orders. At the present time, future orders cannot be equated to meeting emergency requirements; however, as you know, this could change at any time.

Senator GOLDWATER. Again, thank you very much.

The meeting is adjourned.

Secretary WEINBERGER. Thank you, sir.

[Whereupon, at 1 p.m., the committee adjourned, to reconvene subject to the call of the Chair.]

Report of the Secretary of Defense
Caspar W. Weinberger
to the Congress

on the

FY 1986 Budget, FY 1987 Authorization Request
and
FY 1986-90 Defense Programs

February 4, 1985

This Report Reflects the FY 1985 Defense Budget
as of January 30, 1985

TO THE CONGRESS OF THE UNITED STATES

We are now completing four years of steady progress toward fulfilling President Reagan's 1980 mandate to strengthen America's defenses. With the bipartisan support of the Congress and the American people, we have begun redressing the neglect of the 1970s and restoring our nation's strength, confidence, and position of leadership in the world. The FY 1986 Annual Report to the Congress highlights our progress and details the challenges that remain.

The defense programs and budget recommended herein are based on our analysis of the threats facing the United States, our allies, and our interests worldwide. The military capabilities we seek are intended to counter these threats, to provide a safer deterrent, and to ensure peace.

Defense spending is unique, being the only part of the total U.S. budget determined solely by factors external to our nation. The continued Soviet military buildup, as well as the growing menace of international terrorism, regional instabilities, and geopolitical uncertainties around the world, dictate that our nation maintain its commitment to rebuild its deterrent capability.

We know that a strong America requires a healthy economy and financial integrity. To that extent, consistent with our global responsibilities, we have scaled back budget requests significantly to help reduce the federal deficit. The fact that we have been able to make these cutbacks and still deliver our basic defense program is, in part, due to lower inflation rates achieved under the President's economic program, as well as significant savings achieved through aggressive management reforms.

For FY 1986, DoD is requesting $313.7 billion in budget authority and $277.5 billion in outlays, both of which are within the concurrent budget resolution established by the Congress in September 1984. The DoD budget request represents a real increase in budget authority over the current year of about 5.9 percent, an increase both prudent and essential to maintaining America's readiness.

The defense program presented here is balanced and responsible. It will allow further short-term improvements in readiness and sustainability, while continuing our long-range modernization program. It is the result of a rigorous review that seeks to achieve our national security objectives at the least cost to the taxpayer. Our program reflects major management improvements that are providing us more defense for each budget dollar.

The FY 1986 defense program seeks not only to maintain the pace of America's strengthening, but also to secure meaningful arms reductions. America's resolve to remain strong demonstrates to the Soviets that they have nothing to gain from their relentless buildup. If, however, we succumb to budgetary pressures and unilaterally slacken our efforts, not only will our allies lose confidence in our leadership, but our adversaries will lose their incentive to negotiate reductions.

This year a crucial test of United States resolve is the Peacekeeper/MX missile. I urge the Congress to renew its support for the recommendations of the President's Commission on Strategic Forces, as it has done in the past, by voting to release funds for the deployment of Peacekeeper. The success of the Peacekeeper program continues to play a key role in convincing the Soviets to continue the arms reduction dialogue. We cannot jeopardize our arms discussions with naive talk of unilaterally cancelling our only real near-term means of redressing the imbalance in strategic forces.

To enhance security over the longer term, our defense program includes continued research toward an effective defense against ballistic missiles. The Strategic Defense Initiative (SDI) seeks to strengthen deterrence and to enhance our ability to negotiate reductions in offensive weapons. It does so by increasing our adversary's uncertainty that aggression can succeed, thereby devaluing offensive weapons and making it easier to envision genuine reductions.

By staying the course, America can have the security and reassurance of strong defenses. We will progress toward a time, only a few years from now, when we can maintain adequate security without substantial increases in defense spending. If we fail in our resolve now, we simply postpone and worsen the budget sacrifice, while prolonging our security inadequacies and undermining crucial negotiations on arms reductions.

In staying the course for a stronger defense during the next few years, we will fulfill our responsibility to those who follow us. Many of our investments in research and development, including SDI, will not pay dividends for a number of years. If we neglect to invest today in strong defenses for the future, we will be blamed by future leaders and, indeed, by our own children for denying them the peace with freedom that we inherited from our forefathers.

If our nation is to remain safe, prosperous, and free to pursue our other important priorities, we cannot slight our security. For a nation's security is its government's first responsibility. This Annual Report describes how we intend to continue fulfilling that responsibility.

Part I
Peace with Freedom

A. INTRODUCTION: FOREIGN POLICY, NATIONAL INTERESTS, AND THE STRENGTHENING OF AMERICA

1. U.S. Foreign Policy and Military Strength

For more than four decades, free nations and peoples wishing to be free have looked to the United States for leadership and support. Time and again, often at great cost and sacrifice, America has assisted countries struggling to enhance their security, revive their economies, provide for the basic human needs of their citizens, and improve their quality of life. In response to the growing interdependence of nations and the binding nature of American interests -- historically, culturally, and economically -- with those of many other states, American foreign policy has become increasingly internationalist.

America's paramount national interests are peace, freedom, and prosperity for ourselves and for others around the world. We seek an international order that encourages self-determination, democratic institutions, economic development, and human rights. Since the promulgation of the Atlantic Charter and the establishment of the United Nations, the United States has firmly supported organizations that work for international cooperation. We remain committed to the principle that constructive dialogue among nations with differing political systems can promote understanding and peace. We also are committed to negotiating genuine arms reductions that would establish a more stable and secure military balance.

But dialogue and diplomacy alone are not sufficient to ensure peace in a world in which military force can shatter agreements and assumptions about the intentions of nations. In an increasingly complex world, the fulfillment of U.S. national interests and the successful conduct of diplomacy require military strength, particularly in the face of the numerically superior military forces of our adversaries. As President Reagan has said:

> ***We know that strength alone is not enough, but without it there can be no effective diplomacy and negotiations; no secure democracy and peace. Conversely, weakness or hopeful passivity are only self-defeating. They invite the very aggression and instability that they would seek to avoid.***

In essence, military capabilities protect our national interests and enable the other elements of our national power to function. Military strength is not an end in itself; rather, it supports America's peaceful aims and interests.

2. Achievements and Challenges

Since 1981, this Administration has made substantial progress toward ensuring that our military capabilities are strong enough to fulfill their critical purpose. Ongoing programs are building:

- Better military units whose highly trained and better educated men and women are serving their nation with renewed pride and confidence;
- More ready conventional forces, better able to sustain themselves in combat;
- More modern strategic forces and command and control systems, able to provide a more stable and credible deterrent;
- Modern, well-equipped ground and tactical air forces with the technological edge needed to offset the marked numerical superiority and increasing technological sophistication of the Soviet armed forces;
- Maritime forces more capable of protecting our interests worldwide; and
- Strategic mobility forces more capable of supporting our global requirements.

America at mid-decade is strong and proud, a posture befitting our leadership role in the world. The leadership of President Reagan and the bipartisan support of the Congress and the American people have produced military forces that are, by any reasonable measure, more capable and more ready than they were four years ago.

The task now is to sustain our progress. Although we have regained some of the ground lost during a decade of neglect, many important programs are still several years from completion. To maintain America's strength and leadership, we must continue to nurture the broad consensus that has supported our policies and programs to date, so that we will not falter before we reach our goals.

The challenge of strengthening America's military forces has benefitted from the close working relationship between the Joint Chiefs of Staff (JCS) and the Secretary of Defense, reinforcing one of the fundamental principles of American defense organization: informed policy-making by civilian authorities, with the considered advice of the senior military leadership. We are hopeful that recent legislated changes in the powers of the Chairman of the Joint Chiefs of Staff will contribute to the effective performance of JCS advisory responsibilities. Additional changes in the Chairman's role should now await a careful evaluation of the implementation and impact of the new provisions.

The broad rationale for our defense policies and programs is set forth in the chapters that follow. Our policies and programs are geared, as they have to be, to the threats menacing our national interests (Chapter B). They are guided by national security objectives and a defense strategy by which we pursue those objectives (Chapter C). To support our defense strategy, we need military capabilities, both conventional (Chapter D) and nuclear (Chapter E). Arms reductions and related diplomatic priorities (Chapter F) also can contribute significantly to our national security.

B. THREATS TO U.S. NATIONAL INTERESTS

In recent years, as the threats to American security have become more diverse, we have had to cope with situations and crises resulting from many factors other than direct Soviet aggression -- the rescue mission in Grenada being just one example. Still, growing Soviet military capabilities and expansionist policies continue to pose the most direct and formidable threat to our national interests. Until common understanding and arms reductions can reduce the Soviet military threat, we will continue to emphasize programs essential to deterring Soviet aggression.

1. The Soviet Threat

An ambitious and sustained Soviet program of military investment, coupled with restraints on our own defense spending during the 1970s, enabled the USSR to shift critical components of the overall global military balance in its favor. For example, by 1981 the Soviets had achieved an advantage in nearly every measure of strategic arms capability. While continuing to tilt the conventional and nuclear balance in Europe further in their favor, the Soviets were also increasing and modernizing their already considerable air and ground forces in Northeast Asia. The Soviets were also expanding the geographic reach of their forces, moving steadily closer to achieving a global power projection capability. The growth of insurgency and political instability within many Third World nations, the emergence of a worldwide Soviet military presence increasingly able to exploit this instability, and the dependence of the United States and its allies on Third World resources have all contributed to a more complex military balance.

a. The Nuclear Balance

Soviet efforts to achieve military superiority have been particularly pronounced in the area of strategic nuclear forces. The United States, in contrast, has made a conscious and consistent effort for many years to restrict strategic force deployments. During the 1970s, the Soviets undertook a massive expansion of their strategic forces that continues to this day. Through major qualitative and quantitative improvements in offensive as well as defensive systems, they have significantly altered the strategic balance. (See Chapter I-E for a discussion of the nature and implications of the Soviet nuclear buildup to the present day.)

As we look to the future, the Soviet nuclear weapons buildup continues, with a large number of new strategic offensive systems at or nearing the deployment stage. The Soviets are:

-- Continuing production of the Backfire and modified Bear H bombers (the latter of which carries the new AS-15 air-launched cruise missile), while completing development of yet a third type of bomber aircraft, the Blackjack, which we expect to be ready for deployment before the end of the decade;

-- Completing development of several new intercontinental ballistic missiles (ICBMs) -- including the SS-X-24 and SS-X-25 -- which we believe will be deployed both in silos and on mobile launchers over the next few years; and

-- Constructing two new classes of ballistic missile submarines (SSBNs) -- the Delta IV and Typhoon -- and associated submarine-launched ballistic missiles (SLBMs), along with a new sea-launched cruise missile (SLCM), the SS-N-21.

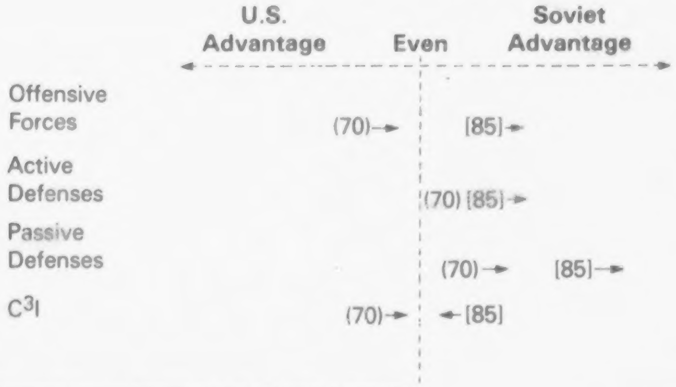
Further complicating the offensive strategic force balance are Soviet developments in the area of shorter range and intermediate-range nuclear forces (INF), which include:

-- Construction of nine additional SS-20 bases, coupled with the continued production of SS-20 missiles and launch equipment; and

-- Continued deployment of 203mm artillery and of SS-21, SS-23, and Scaleboard missiles, the latter in forward locations in Eastern Europe.

Because the overriding purpose of the United States' nuclear posture is to deter the use of Soviet weapons, the Soviet Union's own assessment of the nuclear balance is of great importance. Their assessment, not ours, will determine whether they are deterred. The Soviet Union appears to give relatively greater weight to such contributors to nuclear warfighting capabilities as active and passive defenses, and command, control, communications, and intelligence (C^3I) systems (see Chart I.B.1). When these factors are taken into account, the momentum of Soviet strategic programs over the last 15 years becomes even more pronounced.

Chart I.B.I
Comprehensive Measures of US-USSR Strategic Balance[a]
(1970 to 1985)



[a] Relative balance for these aggregate measures estimated for years 1970 and 1985 (bracketed). Arrows indicate the direction the balance is shifting in that year.

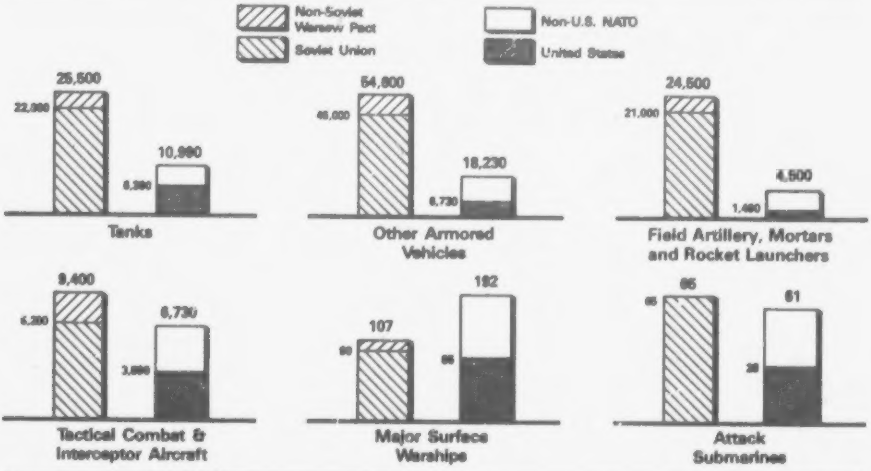
As planned and programmed upgrades are made to our strategic triad, the adverse trends in strategic offensive forces will be arrested and a more stable balance restored. We have already made significant progress over the past four years in strategic C^3I.

At the President's initiative, we are beginning an extensive research and technology program to explore the promise of active strategic defenses. For the next decade, however, the Soviets are likely to retain the lead in active and passive strategic defenses. A comprehensive discussion of the programs to restore the nuclear balance is provided in Chapter I.E.

b. The Conventional Balance

The Soviets have maintained an overall numerical advantage in most categories of conventional forces throughout the postwar period. As Chart I.B.2 shows, since the mid-1970s they have widened their advantage in nearly every force category by producing major weapons at rates exceeding those of the United States and our NATO allies combined. The general quality of Soviet weaponry and equipment has also improved markedly -- often through the purchase or theft of Western technology. All in all, the Soviets and their Warsaw Pact allies have built a military force far exceeding that required for the defense of their territory.

Chart I.B.2
Production of Selected Weapons for NATO and Warsaw Pact Forces
(1975 - 1984)



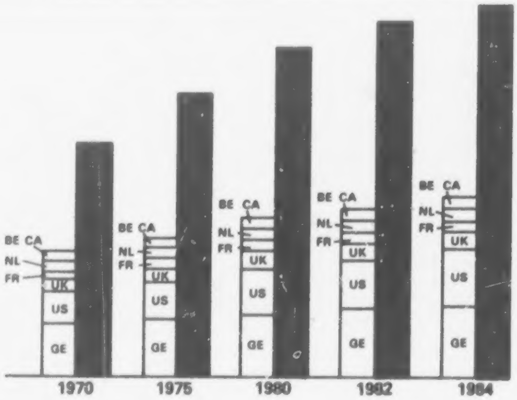
In the critical Western European theater, most measures of the NATO/Warsaw Pact conventional force balance continue to indicate a substantial Pact advantage. In ground combat power alone -- a measure that includes the number and quality of armor, antiarmor, and fire support weapons -- the Warsaw Pact has widened its advantage across the Central European theater from about 1.9-to-1 in 1970 to more than 2.2-to-1 in 1984 (see Chart I.B.3).

Traditionally, NATO has relied on its theater air forces to offset the Pact's greater combat potential on the ground, and NATO continues to enjoy some significant advantages in this area. NATO's aircrews and support personnel are better trained and more capable than their Pact counterparts. Its newest front-line aircraft (F-15s, F-16s, and Tornados) are superior in avionics, weaponry, and overall performance to the third-generation models (MiG-23 Flogger and Su-24 Fencer) now being deployed with Soviet and Pact forces. However, while expanding the Pact's tactical aircraft inventory, the Soviets have also been modernizing their air forces. Two new Soviet all-weather counterair fighters with look-down/shoot-down weapon systems, the Su-27 Flanker and MiG-29 Fulcrum, are expected to become operational in Eastern Europe by the late 1980s. And to take full advantage of the increased range, weapons loads, and better maneuverability of these new aircraft, the Soviets have begun to experiment with new tactics that place a greater emphasis on pilot initiative and independence.

Other factors have eroded confidence in NATO's ability to continue offsetting the Warsaw Pact's ground superiority. Warsaw Pact ground forces and air bases are protected by an increasingly diverse and sophisticated array of air defense systems to neutralize NATO air superiority. Warsaw Pact short-range missiles and deep-battle concepts pose growing threats to the survivability of NATO operating bases and air defenses in a conventional war. And by streamlining the command structure for their strategic, tactical air, and air defense forces, the Soviets have improved significantly their capability to launch simultaneous large-scale offensives in widely separated theaters.

Chart I.B.3

NATO-Warsaw Pact Aggregate Ground Combat Power in the "Central Region"[a]



[a] *NATO Central Region Countries: Belgium (BE), Canada (CA), Netherlands (NL), France (FR), United Kingdom (UK), United States (US), and West Germany (GE). Only French forces stationed in the Federal Republic of Germany are included in NATO totals. Warsaw Pact Central Region Countries: East Germany (EG), Czechoslovakia (CZ), Poland (PL), and Soviet Union (SU). Warsaw Pact totals do not include forces stationed in Hungary.*

Complicating such assessments of the conventional balance are a number of factors that do not readily lend themselves to quantitative comparisons. These include the uncertain reliability of the

Warsaw Pact's East European forces in the event of a conventional conflict, the quality of military leadership and troops on both sides, and differences between the opposing forces' military strategies and warfighting tactics. We believe these and other intangibles, together with the dangers of nuclear escalation, continue to help preclude any Soviet perception that a Warsaw Pact invasion of Western Europe would produce a rapid victory.

The conventional balance is also affected by Soviet expansion and modernization of its forces in the eastern military districts of the USSR, opposite Japan and the People's Republic of China. That buildup has not been offset significantly by the countries of that region.

In Southwest Asia, Soviet forces have been modernized more slowly, but they still pose a significant threat. The Iranian revolution deprived the West of a militarily capable regional ally and, together with the Iran-Iraq war, introduced unstable conditions that might tempt Soviet involvement. Indeed, one need look only at the Soviet invasion of Afghanistan to understand the Soviets' willingness to use force in the region. The West's dependence on Southwest Asia's enormous oil reserves makes the region an inherently attractive target for Soviet economic and strategic gain. In response, the creation of the U.S. Central Command has improved U.S. capabilities and demonstrated our commitment to the security of the region. The growth and strengthening of Soviet forces and the tinderbox character of relationships in the area emphasize again the overriding importance of the Middle East peace initiative proposed by the President in 1982. We could help reduce tensions there, and thereby lessen the attractiveness of the region for the Soviets and help our allies in the process, if we could secure adoption of the principles enunciated by the President. We should work ceaselessly for the success of his peace initiative.

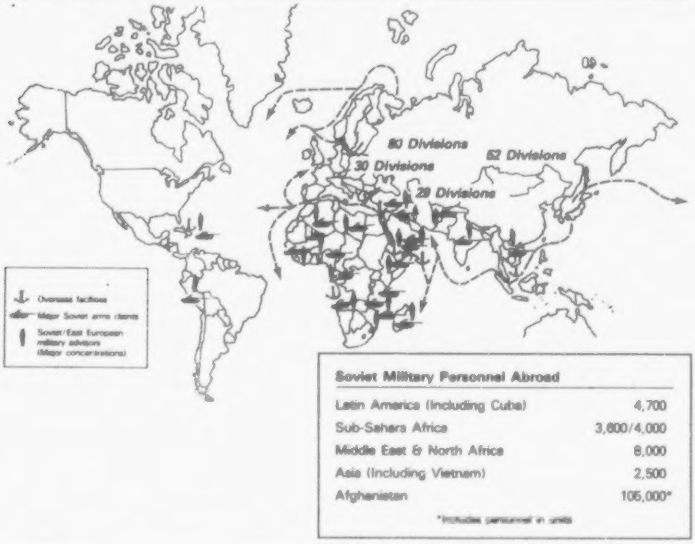
c. The Global Reach of Soviet Power

Twenty years ago, the Soviet Union lacked the ability to project power to regions far from its borders. That picture has now changed considerably. Growth in the range and payload of Soviet military transport aircraft (and of civilian aircraft designed to military specifications) has given the USSR the capability to move its forces or proxies throughout the world. The Soviets continue to develop their naval basing facilities worldwide, and they have established a naval air logistics and operations base at Cam Ranh Bay, Vietnam. They have also expanded their access to bases in Syria, Libya, Ethiopia, South Yemen, Angola, and Cuba. And they are now building a nuclear-powered aircraft carrier that we believe will substantially extend the reach of Soviet tactical aviation.

Soviet power projection capabilities and the geographic expansion of Soviet presence are mutually reinforcing. As illustrated in Chart I.B.4, these activities have provided the Soviets with bases and ports near the world's major trade routes and energy resources, threatening U.S. interests as well as those of our friends and allies. In a major NATO/Warsaw Pact or global conflict, for example, Soviet forces currently deployed abroad could, at the onset of hostilities, attack Western naval forces and impede the flow of forces and supplies from the United States to the theater of conflict.

Chart I.B.4

Soviet Global Military Reach


80 Divisions
30 Divisions
52 Divisions
29 Divisions
Overseas facilities
Major Soviet arms clients
Soviet/East European military advisors (Major concentrations)

Soviet Military Personnel Abroad	
Latin America (Including Cuba)	4,700
Sub-Sahara Africa	3,600/4,000
Middle East & North Africa	8,000
Asia (Including Vietnam)	2,500
Afghanistan	105,000*

*Includes personnel in units

Soviet military assistance to Third World countries remains Moscow's major instrument for gaining access and influence around the world. Since 1980, as shown in Chart I.B.5, the Soviet Union has delivered far more major weapons systems to the Third World than has the United States, which concentrates instead on economic assistance to promote development in these regions.

Even the nature of the two countries' military assistance is different. While the Soviets emphasize major weapon systems, the United States provides more spares, follow-up support, and technical and training services. Our program is designed to stimulate greater self-reliance, while the Soviets seek to foster military dependency. The Soviets flood recipient countries with more than 20 times the number of permanent military technicians the United States assigns abroad to manage our military assistance program.

The Soviets' ambitious military assistance program, coupled with their strong military forces, allows them to achieve many of their political objectives through coercion. Soviet displays of military might often intimidate nations who lack a strong indigenous defense capability, particularly if they are not members of a strong defensive alliance.

Chart I.B.5

Comparison of Major U.S. and Soviet Equipment Delivered to the Third World[a] (1980 – Mid-1984)

	Total		Near East and South Asia		Sub-Saharan Africa		Latin America		East Asia and Pacific	
	U.S.	*USSR*	*U.S.*	*USSR*	*U.S.*	*USSR*	*U.S.*	*USSR*	*U.S.*	*USSR*
Tanks/Self-Propelled Guns	2,896	4,215	2,426	3,160	20	450	28	400	422	205
Field Artillery	2,559	6,410	808	3,530	123	1,800	505	770	1,051	310
Supersonic Fighter Aircraft	420	1,810	217	1,230	6	290	18	130	129	160
Helicopters	178	773	3	590	0	130	74	70	101	100
Surface-to-Air Missiles	4,558	8,665	2,896	6,900	2,559	545	420	870	178	350

[a] As of June 30, 1984.

d. Soviet Doctrine and Goals

Soviet warfighting doctrine has consistently exhibited an offensive orientation. Even in the immediate postwar period, when U.S. nuclear supremacy made offensive operations by the Soviet army very risky, the Soviets maintained an offensive doctrine that emphasized surprise, high-tempo armored attacks, massive firepower, and the rapid exploitation of breakthroughs. Today, their General Staff's concept of operations represents a continuation of this long-standing Soviet preference. The growing emphasis on operational maneuver groups -- highly mobile formations of up to corps size designed for the rapid seizure of targets in enemy rear areas -- exemplifies this approach. The development of large special operations forces and strategic air armies tailored for attacks on high-priority targets deep in Western Europe and the Far East further illustrates the offensive orientation of Soviet warfighting doctrine. New and more capable Soviet ships and weapons, and the manner in which they are being deployed, indicate clearly that the Soviet fleet is intended ultimately to extend its area of sea-control and sea-denial operations farther from the Soviet landmass, severing the sea-lanes linking the United States with its allies. In short, the Soviet challenge and threat to our interests is global, and thus, deterrence requires that we have global capabilities to respond.

While Soviet leaders regard military power as their primary strength, they view the struggle with the West in a multidimensional context, combining political, economic, social, ideological, propaganda, and military factors into what they characterize as "the correlation of forces." The Soviets believe that the correlation is shifting in their favor, and through invasion, subversion, covert activities, the use of proxies, and the threat of intervention, they work to exacerbate existing instabilities. They also exercise to the fullest their power to try to influence public opinion in the open societies of the West, while they, with no effective public opinion in their country, are shielded from any similar activities by the West. Academic experts analyzing Soviet statements and actions remain divided as to whether the Soviet leaders are motivated primarily by the ideological desire to spread communism (or just pretend to be as a means of justifying and legitimizing their own authority); or wish to extend their own power or that of the Russian state; or merely have an exaggerated sense of insecurity, so that the accumulation of military hardware and the projection of military presence to neighboring or distant countries is intended as insurance against what they perceive to be external threats. This latter theory is inherently incredible when we note that their military buildup has been continuous, regardless of whether or not they faced any conditions they could conceivably call a threat.

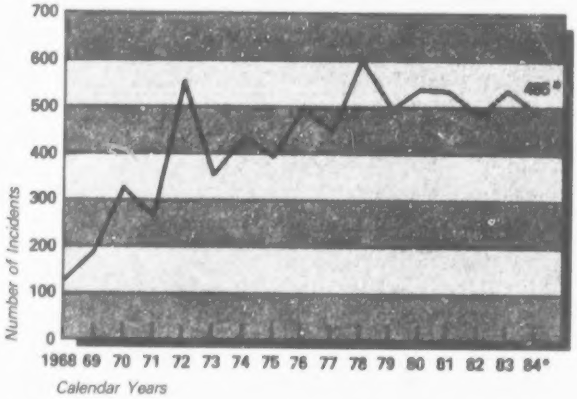
Regardless of the underlying motivations for the Soviet military buildup, postwar history demonstrates a Soviet willingness to take advantage of any perceived weaknesses in the global politico-military balance. A prudent American defense policy cannot rest on unproven and scarcely credible theories of relatively benign Soviet motivations, but must respond to the facts of Soviet policy and behavior and to our knowledge of what the Soviets are, and what they have done: their totalitarian character; their concentration of enormous resources on military purposes, without regard to their overall economy or the quality of life of their people; and their secrecy as a closed society. We must acknowledge the continuing major differences and the long-term competition between our two systems, and try to direct that competition toward more stable and peaceful areas.

2. Other Threats

The United States also has interests abroad that can be threatened by nations or groups much less powerful than the Soviet Union. Terrorism, local warfare disrupting world resource supplies, and insurgent groups or neighboring nations seeking to overthrow governments friendly to the United States all pose challenges to our security. The proliferation of advanced conventional armaments and of nuclear weapons, coupled with the increasing threat posed by chemical and biological weapons, portend even more ominous challenges in the years ahead. In 1984, the military forces of 20 countries were involved in conflicts in 11 areas of the world. Most of those areas contain resources essential to many nations, including the United States. Each area is gripped by instability that has created new opportunities for exploitation disadvantageous to the West. The complexity of the interdependent world system offers no easy solutions.

As Chart I.B.6 shows, terrorism has become an unfortunate fact of international life. The bombing of the U.S. Embassy Annex in Beirut in September 1984 was the third major terrorist attack upon U.S. personnel working in Lebanon. The mining of the Red Sea is an example of a terrorist threat directed against the shipping of all nations. The United States will continue to seek a more active defense against terrorist attacks throughout the world. We are urging individual nations to provide appropriate safeguards against terrorism in their security plans. At the same time, we are consolidating key intelligence assets and seeking the help of other nations in containing the further spread of terrorism.

Chart I.B.6
International Terrorist Incidents
(1968 - 1984)



* Data through 31 August 1984.

Low-level threats to our security generally lend themselves to responses short of direct intervention by American military forces. But we cannot exclude the possibility of threats to our citizens or interests, or to those of our friends, that might require the employment of our military forces. Grenada -- where there was indirect Soviet involvement -- is a case in point. In such instances, the flexibility, mobility, and special training of U.S. forces will be important in meeting whatever threat may arise, just as we were able to be highly effective in securing our objectives in Grenada.

But our policy remains, first, to try to alleviate the conditions leading to conflict by fostering political negotiations, extending economic aid, encouraging free enterprise that brings about economic improvement, and providing diplomatic support for human rights and the continued development of democratic institutions. Second, our security assistance programs remain vital channels through which we support other countries' efforts to remain free of external domination and coercion.

C. U.S. NATIONAL SECURITY OBJECTIVES AND DEFENSE STRATEGY

1. National Security Objectives

America's most basic national security objective is to preserve the United States as a free nation at peace, with its fundamental institutions and values intact. From this objective flow supporting objectives for which a defense strategy and military programs must be formulated. These are to:

-- Safeguard the United States, its allies, and friends from aggression and coercion;

-- Ensure continued U.S. access to the oceans and space;

-- Protect American citizens abroad;

-- Protect U.S. economic interests worldwide by maintaining steady access to energy supplies, other critical resources, and foreign markets;

-- Maintain close and productive relations with our allies and friends abroad and work closely with them to build and maintain regional stability in areas of shared vital interests;

-- Inhibit the expansion of Soviet control and military presence throughout the world, while increasing the costs of supporting or using subversive, terrorist, and other aggressive forces, for the Soviet Union or any other nation or group espousing such tactics;

-- Support the development and preservation of democratic political institutions in other nations;

-- Limit Soviet military advantages by strengthening U.S. and allied military capabilities, and by preventing the flow of militarily significant technologies and resources to the Soviet Union; and

-- Pursue equitable and verifiable arms reduction agreements to create a stable and secure military balance and deterrence at lower levels.

2. U.S. Defense Strategy

U.S. defense strategy can be summarized as follows:

-- To deter aggression and coercion against the United States and its allies, friends, and vital interests.

-- Should deterrence fail, to seek the earliest termination of conflict on terms favorable to the United States, our allies, and our national security objectives, while seeking to limit the scope and intensity of the conflict.

A fundamental premise of U.S. defense strategy is the reactive posture of our military forces. The United States does not seek territorial gains from the use of military power. It will use its military forces only in response to clear threats to its security and interests. This places a premium upon seeking means to ameliorate the causes of conflict before they lead to armed combat. This policy has important implications both for our strategy (how U.S. forces are employed) and for our programs (what capabilities we must build into our forces).

America's defense effort requires a close relationship between our military strategy and the force structure we select to carry out that strategy. Our defense strategy must be anchored firmly in our national security objectives, and our force structure decisions must stem directly from this strategy if our forces are to be able to execute their required missions. Strategy and force structure therefore must be planned together, taking into account the requirements of the strategy, the military capabilities that the defense program is to provide, military doctrine, and the need for priorities that ensure our defense assets meet our most important needs.

a. Deterrence

Deterrence is the core of U.S. strategy. It seeks to provide security by convincing a potential aggressor not to commit aggression. For deterrence to succeed, possible adversaries must be persuaded that the risks and cost of aggression will exceed the gains. The military sources of deterrence are:

-- Effective defenses, to confront an adversary with the likelihood that his aggression will not succeed;

-- The threat of escalation, to warn an adversary that his aggression could start hostilities that might not be confined in the manner he envisions; and

-- The threat of retaliation, to raise the prospect that aggression will trigger attacks on the aggressor's national interests and cause his losses to exceed any possible gains.

To be credible, these three military sources of deterrence require that the United States both have, and be perceived by friends and foes alike as having, the military capability to execute any of these responses -- effective defense, escalation, or retaliation -- and the political will to carry them out.

Of the three military sources of deterrence, the most reassuring is effective defense. A potential aggressor would have little cause to doubt that a nation would use its military capabilities to try to repel an attack. Effective defense is also less likely to cause escalation than are the other two sources of deterrence, and it provides the means for protecting ourselves should deterrence fail.

These advantages of defensive forces help explain why the NATO allies have committed themselves to strengthening their conventional forces. Likewise, because of the limitations and inappropriateness of nuclear weaponry, America's commitments outside Western Europe require strong conventional forces for deterring nonnuclear hostilities. The uniquely valuable contribution of defense capabilities to keeping the peace is also a fundamental justification for the Strategic Defense Initiative (SDI) this Administration is pursuing to try to secure a thoroughly reliable defense against incoming Soviet nuclear ballistic missiles.

In sum, American and allied forces, using strategic, theater, and general purpose weapons, are intended to deter aggression by demonstrating a credible capability to deny Soviet war aims.

b. Defense

Should deterrence fail, U.S. strategy seeks the earliest termination of conflict on terms favorable to the United States, its allies, and its national security objectives. "Favorable" means that if war is forced upon us, we must win -- we cannot allow aggression to benefit the aggressor. It does not mean more territory or other elements of power for the United States. In seeking the earliest termination of conflict, the United States not only would act to defeat the aggression but also would try to convince the attacker to halt his advance because his continued aggression would entail grave risks to his own interests. Still, because of the enormous military strength of the USSR, the United States cannot prepare only for a "short war," which would merely tempt an adversary to believe he could outlast us in combat.

Although U.S. strategy seeks to limit the scope and intensity of any conflict by containing it to its original location, we must have the capability to respond should hostilities erupt in two or more regions simultaneously. The Soviets are fully capable of launching aggression in more than one region at the same time, and U.S. strategy must take account of that fact. In seeking to limit the intensity of a war, our preference would be to end hostilities by employing forces that do not create or risk escalation. Should our attempts to limit the scope or intensity of war fail, however, U.S. strategy provides for the flexible and sufficient application of force to ensure that no area of vital interest is lost by default. Such a strategy simply recognizes that the loss of any vital area would be an encouragement and a springboard for further aggressive acts against us.

America's strategy for defense stresses a reliance on forward-deployed forces. U.S. interests and commitments and the threats we face require that we continue our substantial forward deployments in and around Western Europe, East Asia, and Southwest Asia. The proximity of Soviet forces to our allies and overseas interests imposes severe demands on the timeliness of response, since territory once lost would be difficult to regain. The purpose of our forward-deployed forces are, therefore, to:

-- Defend the United States far more effectively than attempting to rely on a discredited "fortress America" philosophy or strategy;

-- Deter aggression in a more convincing and effective way than could be done without a visible presence;

-- Increase our ability to respond effectively and quickly in the event of a war and to bring it to a favorable end;

-- Reassure our allies, assist them in resisting intimidation, and enable them to sustain their full contributions to our collective security;

-- Discourage regional instabilities and low-intensity aggression; and

-- Provide a more stable international environment for constructive diplomacy.

To fulfill these purposes, forward-deployed forces must be ready, highly capable, and sustainable in combat. Joint and combined exercises serve to test, train, and improve our capabilities while bolstering the deterrent value of our forces. We must be capable of responding quickly to aggression if we are to defeat an attack or sustain a defensive line until reinforcements can be brought to bear or a decision made to employ other tactics.

Our overseas deployments are backed up by forces based here in the United States, including the Reserve Components, a significant portion of which must be rapidly deployable. In the event of a conflict, all of these reinforcing units would depend on airlift and sealift to get them to the combat theater in time to be effective. For these reasons, we will continue to complement our rapid-deployment capabilities by expanding our stocks of prepositioned materiel overseas. Furthermore, we will continue to make every effort to secure host nation support, overflight, landing and bunkering rights, and access to essential overseas bases and facilities in advance of potential crises or contingencies.

Should deterrence fail, and war be launched against us, U.S. military responses would be governed by existing commitments, general strategic priorities, the specific circumstances at hand, and the availability of forces. While neither the United States nor any one nation has, or can afford to have, all the forces required for simultaneous, effective defense against major aggression in all areas where the Soviet Union and its allies might launch attacks, we and our allies together must have forces that are strong and flexible enough to respond effectively to the most serious threats to our worldwide interests. That, indeed, is the hallmark of an effective defense.

3. Supporting Policies

Several policies guide U.S. military strategy and programs, and support both deterrence and defense.

a. Alliances

A strong system of alliances and regional cooperation helps the United States and its allies and friends preserve peace and freedom. It enables cooperating nations to share their common security burdens and achieve a division of labor capitalizing on the relative strengths of each state. Efficient alliance security requires that national forces be able to fight together effectively in combined operations. It also requires a coherent program of security assistance and a sharing of key technologies and of the task of providing arms to the alliance so that each alliance partner has the means of increasing its capabilities for the military role it has been assigned.

Because of our alliances, we all are able to achieve a level of deterrence and defense that otherwise would be unattainable for any one of us. Furthermore, cooperation in defense matters can reinforce political cohesion and improve diplomatic and economic relationships.

b. Security Assistance

Security assistance consists of U.S. sales or grants of defense goods or services to allied and friendly nations. It is an indispensable tool of American foreign policy and an essential element in strengthening our defense posture around the world. Because of the magnitude, diversity, and complexity of our global security interests, the United States cannot, and should not, be expected to safeguard the free world's interests alone. Therefore, it is in our national security interest to assist allies and friends in strengthening their defenses against external aggression and internal conflict. Our security assistance program is the principal instrument for accomplishing this goal. The program also helps us gain access to bases and overflight rights, improves our power projection and forward defense capabilities, and enhances our defense industrial mobilization base at home.

c. Superior Technology and Quality

The United States continues to rely on its superior military technology to offset the numerically larger forces threatening its security interests. We and our allies have never advocated a conventional military buildup that matches the Soviet bloc's numbers soldier for soldier, tank for tank, or aircraft for aircraft. Instead, we have depended on superior military technology, and on better readiness, training, leadership, and better educated people steeped in freedom with all of the inestimable advantages that brings, to compensate for quantitative disadvantages. Modern technology makes our systems more effective and more survivable. Additionally, a strong technological edge can protect us against scientific breakthroughs by potential adversaries that could seriously erode the deterrent and defensive capabilities of our own forces.

To ensure that America's technological advantage over the Soviet Union is preserved in the decades ahead, DoD is dedicated to promoting a strong national and Western educational, scientific, and industrial base, while guarding against the inappropriate transfer of technology to the Soviet bloc. Although the West's technological lead remains sufficient to enable us to maintain a viable military balance for the present, the technological balance could shift markedly toward the Soviets if the flow of Western technology to the East is not arrested.

4. Regional Objectives and Strategies

The United States cannot itself provide all of the manpower and weapons necessary to deter aggression worldwide. We must therefore build on and expand the strength of our alliances, linking together improvements in the U.S. defense posture with renewed efforts to stimulate allied contributions and, where required, military assistance.

a. Europe

The strength and resilience of the Atlantic Alliance provides the foundation for the defense of our interests and commitments in Western Europe. The Atlantic Alliance enjoys enduring support in all the states party to it, despite all the propaganda efforts the Soviets have been able to bring to bear on our free public opinion. The propaganda attacks the Soviet Union directed against the deployment of intermediate-range nuclear forces (INF) in Europe did not diminish public support for the Alliance at all. The deployments were begun only after we had attempted to negotiate an arms reduction agreement with the Soviets that would have rendered such deployments unnecessary.

Since 1967, NATO's strategy has been one of deterrence based on a capability for defense at all possible levels of conflict. The strategy calls for forward defense and for flexibility in response. The United States and its allies seek an effective mix of conventional and nuclear capabilities, one that would neither force NATO to early nuclear use from conventional weakness nor preclude such use should that be forced on the Alliance.

NATO defense policy and military strategy posit a sharing among the member nations of both the risks and the burdens of deterrence and defense. We remain committed to doing our part, and we encourage, in the most effective way we can, our allies to do theirs.

b. South America, Central America, and the Caribbean

In this area, the primary U.S. objective is to maintain the security of the North American continent and the contiguous Caribbean Basin, and to help create a security environment conducive to democracy. The proximity of Central America and the Caribbean, and our close ties of culture, kinship, and trade, make the security of this area of paramount importance not only to our own territorial security but also to U.S. interests in other regions.

The Soviet Union's influence and presence in the region have been growing with the help of its proxy, Cuba. As Cuba and Nicaragua continue to acquire offensive weapons, the threat to neighboring states, and accordingly to U.S. interests, increases. Of considerable concern is the growing Soviet military influence in Peru and increasing Soviet presence in the South Atlantic. The Soviet Union and Cuba have taken advantage of the underlying poverty in the region, and of the other social, economic, and political problems there, by supporting insurgency, terrorism, and destabilization efforts.

Our task is to help our neighbors address their underlying problems, while countering and ultimately reversing Soviet and Cuban expansion. U.S. policy supports the growth of democratic institutions, economic development, the achievement of regional solutions to problems through diplomatic negotiation, and the enhancement of security assistance so that the democratic and democratically inclined nations of this area can help themselves to survive. Without this U.S.-provided shield, there is little hope of achieving the stability required for the development of democratic institutions. The strengthening of democracy is essential if these nations are to improve the protection of human rights and to attract the investment needed to relieve the endemic poverty there.

c. Middle East and Southwest Asia

Since the late 1940s, major objectives for U.S. policy in the Middle East and Southwest Asia (SWA) have remained virtually unchanged: to deter Soviet aggression and prevent Soviet gains in the region; to protect the security of Israel and the territorial integrity of the other regional states; to ensure unimpeded access to oil and other valuable raw materials; and to find a lasting solution to the Arab-Israeli problem. The President's Middle East peace initiative of 1982 offers the best hope of achieving this, and we should pursue it with vigor.

In the past year, we have faced serious challenges to all our objectives with the continued Soviet occupation of Afghanistan, the escalation in the war between Iran and Iraq, and the Soviets' strong support for Libya and Syria, which in turn have engaged in aggression against neighboring states.

By maintaining a strong deterrent posture and the ability to respond quickly to regional requests for assistance, we have prevented the Soviets and others from exploiting these opportunities, thereby improving regional confidence in U.S. military power and our reliability as a security partner. We also have achieved allied cooperation in contributing to the protection of our shared vital interests in the area. The recent multinational effort to clear the Red Sea of mines and the provision of U.S. and French assistance in response to the Libyan invasion of Chad are examples of such cooperation. In these efforts, more emphasis is being placed on improving the military capability of friendly states in the region so that they can defend themselves in local conflicts, without need of intervention by U.S. forces, and so that they can assist in any broader regional contingencies. Finally, we are giving greater attention to the growing threat of terrorism in the region. We are taking steps to ensure that such threats are detected early, that attacks are deterred, and that U.S. facilities and personnel are adequately protected.

d. East Asia and the Pacific

America is a Pacific power with vital security and economic interests in East Asia and the Pacific region. Four states border the Pacific; a fifth, Hawaii, lies in the center of this vast region; the U.S. territories of Guam and American Samoa occupy strategic positions in the western and southern Pacific; and more than 2,000 other Pacific islands are under U.S. administration. More than 30 percent of U.S. trade is conducted with the nations of East Asia, and five of our eight mutual security treaties link us with East Asian countries.

Our objectives in the region include the defense of U.S. territory and the lines of communications that connect us to our Pacific allies and friends, and the fulfillment of our treaty commitments to assist our allies. We are encouraged by the progress of our Northeast Asian allies in taking on more of the responsibility for defending themselves and thereby contributing to the defense of the region. We continue to urge Japan to develop within this decade the capabilities required to carry out fully its self-defense missions, including defending its sea-lanes out to a distance of 1,000 miles. We also continue to encourage and assist the Republic of Korea's efforts to improve its self-defense capabilities against the North Korean threat, while U.S. forces help to maintain peace and stability on the peninsula.

Elsewhere in Asia, we continue our efforts to develop an enduring relationship with the People's Republic of China. We support Thailand's efforts to strengthen its defense capabilities against the Vietnamese threat, and we also support the Philippines' intentions to improve its capabilities to combat an increasingly violent insurgency and to mass its political and economic strengths. Our bases there are vital to the maintenance of Philippine sovereignty, and to our military and strategic imperatives.

In the Pacific, we have secured long-term denial and basing rights in Micronesia and the Marianas, whose transition to a new and closer political relationship with the United States awaits congressional approval. We look to our ANZUS security partners to continue their contributions to the security of the South Pacific, Southeast Asia, and the Indian Ocean, and to cooperate with us to maintain the strength of the Western Alliance.

e. Africa

In Africa, our principal objectives are to support the independence and stability of friendly governments, recognizing that one of the key elements of stability is a happy, free people fully able to participate in their government; to preserve free access to mineral resources essential for meeting defense and industrial needs of the Western nations; and to deny the Soviet Union and its allies opportunities to make further inroads in the region.

Since important lines of communications run across or near Africa, our ability to deploy forces to nearby theaters, such as Southwest Asia, depends on gaining and maintaining access and transit rights in Africa. To challenge the forces creating instability in the continent, we seek -- through a combination of our own efforts and greater cooperation from both our European allies and other powers -- to provide timely and appropriate security assistance. That assistance is increasingly focused on measures (e.g., logistics, facilities, and management improvements) that will enable African military establishments to provide for themselves more effectively, and on activities that will contribute to nation-building.

D. CONVENTIONAL CAPABILITIES REQUIRED BY U.S. STRATEGY

Strong conventional forces are essential to deterrence and defense. In the past four years, we have made great strides in rebuilding our conventional capabilities. As a result, we can be much more confident today of our ability to counter, and therefore deter, threats to our interests around the world. Yet, during the past year, there have been inaccurate and oftentimes confusing claims of a reduction in the readiness of U.S. forces. Some of these claims have been based on highly technical methodologies that measure unit readiness in terms of narrowly defined criteria (some readiness ratings declined when we made the criteria more stringent to reflect the new capabilities needed to meet a growing threat); others draw on reports using outdated and incomplete data. The belief that our forces are less ready today than they were four years ago is dangerous and untrue. Indeed, our commanders in the field have emphatically declared that their troops are by any measure far more ready today.

One source of public misunderstanding has been a misinterpretation of readiness and its relationship to combat capability. Although often incorrectly used as a synonym for warfighting capability, readiness -- the people, training, equipment, and maintenance needed to keep our forces prepared to deploy and fight -- is only one of four components that, when integrated and maintained in balance, form the pillars of our total combat capability. The other three components are sustainability -- the inventories of munitions, spare parts, fuel, and other items that give our forces "staying power" for prolonged combat; modernization -- the equipping of our forces with more capable, technically superior weaponry and facilities; and force structure -- the number and composition of air wings, battalions, and ships in the Armed Forces.

Our objective is to improve the combat capability of our forces through steady and balanced progress in each of these four pillars. Furthermore, we are working hard to enhance our ability to conduct combined operations with allied forces, while striving to achieve greater interservice cooperation in the development and procurement of equipment, as well as in joint combat roles and missions.

1. Readiness

Our military forces must be able to reach their full combat potential under the most demanding conditions. Should deterrence fail, warning time could be so short that peacetime readiness might become the key determinant of success. For this reason, one of our top priorities has been to build and maintain a combat-ready force -- one that is adequately manned and trained, supplied with modern equipment in good working order, and supported by excellent facilities.

Over the past four years, the quality of our young men and women in uniform has improved markedly. Each of the Services continues to meet its enlistment goals with an increased percentage of better-educated recruits. As Chart I.D.1 shows, more than 93 percent of our recruits in FY 1984 were high school graduates, compared with less than 70 percent in FY 1980. We are also retaining more of our quality people. The overall reenlistment rate has increased from 55 percent in FY 1980 to 68 percent in FY 1984, while first-term reenlistments have jumped by 31 percent, as reflected in Chart I.D.2. Moreover, these important gains have occurred in a revitalized economy.

This increase in both the educational level and experience of our forces has produced better leadership, fewer disciplinary problems, better equipment maintenance, and more effective training (see Chapter II.D). Collectively, these factors indicate improved readiness.

Chart I.D.1

Recruits with High School Diplomas
(Percentage)

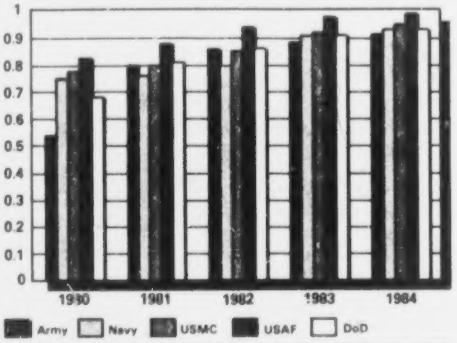
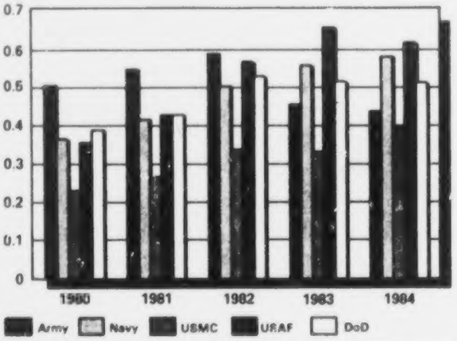


Chart I.D.2

First Term Reenlistments
(Percentage of Eligible)



To complement these improvements in our forces, we are providing our people with additional opportunities for more realistic training. Our aircrews depend on this training to overcome the Warsaw Pact's advantage in numbers of aircraft. Air Force tactical aircrews now get 20 hours of flying time per month (up from 16 hours in FY 1980 and a low of 13 hours in FY 1978), and Navy aircrews get almost 24 hours, more than double that of their Warsaw Pact counterparts. Our Navy ships are steaming an average of almost 35 days each quarter, up from 32 days in FY 1980. And the Army has increased its battalion rotations through the National Training Center at Fort Irwin from 16 in FY 1982 to 24 this year, giving 50 percent more soldiers highly realistic training. In short, training improvements are helping to keep our forces more ready and capable.

Despite the increased use of modern equipment for training, we have been able to improve the immediate operational availability of our equipment through increased funding for repair parts and maintenance. Since FY 1981, we have raised funding for the daily operation and maintenance of our forces by almost 25 percent in constant dollars. At the same time, improvements in spare parts availability have increased by more than 75 percent the number of tactical combat sorties that could be flown in Europe. The number of Navy ships rated "fully" or "substantially" ready has climbed by more than 25 percent since January 1981, while Army and Marine Corps equipment availability rates have continued to increase.

Thus, we have significantly improved our ability to bring forces to bear in the critical early phases of a conflict. Readiness, however, is not a one-time investment. Continued growth in the readiness accounts will be required in order to keep readiness levels high as the force structure increases and our weaponry is modernized. Since our military strategy is fundamentally a defensive one, it is essential that we maintain our forces' readiness at or above that of any potential aggressor.

2. Sustainability

We recognize that our forces, even with improved readiness, might become a "hollow" deterrent if we were unable to sustain them in combat. We must therefore ensure that they have adequate logistical support -- munitions, fuel, repair parts, and in some instances, replacement equipment -- to maintain their combat strength over time.

We have made considerable progress in improving the sustainability component of our military capability. These gains have been achieved despite the fact that building stockpiles of war reserve materiel is a slow, expensive endeavor, and that our job was made all the more difficult by the extremely austere baseline we inherited from the FY 1980 budget. The munitions procured during the past three years will, when delivered, result in a steady growth of war reserve stocks by 14 percent for the Army, 58 percent for the Navy, 62 percent for the Air Force, and 24 percent for the Marine Corps. Overall, aggregate funding for the sustainability accounts will have doubled in real terms between FY 1981 and FY 1986. Additionally, through the Industrial Preparedness Planning Program, we have increased significantly the level of effort devoted to improving the surge and mobilization responsiveness of the industrial base.

In spite of this progress, sustainability is a continuing concern, given the steady improvements in the warfighting capability of our potential adversaries. In Europe, for example, the combat sustainability of NATO's forces remains inferior to that of the Warsaw Pact. It is therefore imperative that we continue, along with our allies, to emphasize increases in sustainability that not only would bolster the deterrent value of our conventional forces but, if deterrence fails, would allow them to survive.

If we continue to build upon the gains made during the past four years, by the end of the decade we will achieve a much safer level of conventional weapons sustainability. The increased surge and industrial mobilization expansion capacity will further enhance the sustaining power of our forces.

3. Modernization and Force Structure

Through a balanced approach, we are improving the combat capability of our forces not only by improving combat readiness and sustainability, but also by modernizing our forces to maintain their qualitative edge, and by developing a force structure that can meet potential threats. Our overall objective is to make our conventional forces more responsive and flexible by improving their striking power and mobility.

The FY 1986-1990 defense program continues our commitment to provide capable systems that will enable our forces to counter a numerically superior and qualitatively improving opponent. The expansion to a 600-ship Navy and the creation of two new Army light infantry divisions, a renewed emphasis on Special Operations Forces (SOF), a gradual expansion of our tactical air forces, and substantially increased investments in airlift and sealift capabilities are among the force structure goals that we are well on the way to achieving. We will continue to seek ways to counter Soviet capabilities through flexible and innovative tactics, operational expertise, and improved weapons technology. We will continue to emphasize force responsiveness and adaptability, improved surveillance and communications capabilities, and increased range, speed, and flexibility -- all needed to meet the rapidly changing conditions of the modern battlefield.

a. Land Forces

The Army, hit especially hard by a decade of limited modernization, is well on the road to rebuilding its capability to respond to aggression over a broad spectrum of conflict, from counterterrorist operations to full-scale armored and mechanized warfare.

NATO's ground forces in Central Europe face a Warsaw Pact army of some 90 divisions, including about 60 Soviet divisions stationed in Eastern Europe or in the western military districts of the Soviet Union and more than 30 non-Soviet Pact divisions based in Poland, Czechoslovakia, and East Germany. Most of these 90-plus divisions are either motorized rifle or armored divisions, deploying about 28,000 tanks and 18,000 artillery pieces and heavy mortars. About two-thirds of the divisions are equipped for rapid, mobile warfare and are deployed in forward areas, where they are maintained in a high state of readiness. Each year, these forces continue to improve in overall quality and sustainability.

To meet the threat in Europe, we are working to improve the antiarmor capabilities and tactical mobility of our forces, as well as to provide them with better command, control, and communications (C^3) support. The M1 Abrams tank, the M2/3 Bradley Fighting Vehicle (BFV) equipped with TOW antiarmor missiles, and the AH-64 Apache attack helicopter carrying Hellfire antiarmor missiles will provide potent additions to NATO's antiarmor defenses. For example, the M1 demonstrated in recent NATO exercises that it can shoot accurately on the move, at speeds of up to 45 miles per hour, in day or night. We have stepped up the pace of our ground force modernization programs, adding more M1s, BFVs, and AH-64s to the procurement levels planned by the previous administration.

Obviously, not all conflicts in which our land forces might become involved would require armored units. Indeed, for many contingencies, armored units might be inappropriate. The Army is forming two new, 10,000-man light infantry divisions -- one to be based in Alaska and the other at Fort Drum, New York. It also plans to convert two existing infantry divisions to a light configuration, and to activate a light infantry division in the Reserve Component. Deployable worldwide up to three times faster than standard infantry divisions, the new light infantry divisions will add a new dimension of strategic mobility to our forces, increasing U.S. fast-reaction capability worldwide. The divisions will be trained and equipped for a wide range of missions, particularly in areas appropriate for close-in fighting, thus demonstrating the United States' resolve to prevent armed hostilities, whether of low-intensity or on a major scale.

Effective use of tactical mobility can help counter a numerically superior opposing force by permitting personnel and materiel to be concentrated at places where they can best exploit enemy vulnerabilities. A new generation of highly mobile helicopters and support vehicles is allowing us to make better use of this tactic. For example, the UH-60 Blackhawk helicopter, which proved its worth in Grenada last year, is a larger, more agile and reliable aircraft than the UH-1 it replaces.

Also supporting our ground forces are highly capable new weapons such as the Multiple-Launch Rocket System (MLRS). In less than a minute, a single launcher can fire 12 rockets beyond cannon range, covering an area the size of six football fields with approximately 7,700 grenade-like submunitions effective against both personnel and lightly armored targets. The MLRS, incidentally, is an excellent example of U.S.-NATO cooperation in arms development.

Complementing these improvemens in combat systems are upgrades to the command and control systems that would support our forces in battle. In the mid- to late 1980s, our commanders will receive lightweight, jam-resistant C^3 equipment that will assist them in managing their forces on a high-technology battlefield.

b. Maritime Forces

We need strong maritime forces to support our forward defense strategy, to fulfill the responsibilities associated with our network of overseas alliances, and to protect the vital sea-lanes linking us to Europe, Southwest Asia, and Northeast Asia. We rely heavily on maritime forces to respond to a wide variety of crises, a role to which their global reach, rapid responsiveness, and integrated combat power are particularly well suited.

The Soviets have greatly expanded and modernized their naval capabilities over the past two decades. They now have a genuine "blue water" navy, capable of projecting power worldwide and oriented toward undermining U.S. maritime defense capabilities. In response, and in support of our global maritime responsibilities, we are enlarging our Navy to 600 ships -- a goal that will be achieved in FY 1989. By the following year, the deployable force will include 15 aircraft carriers, 66 amphibious assault ships, and 4 reactivated battleships fitted with cruise missiles. Modern aircraft carrier battle groups enable our naval forces to respond rapidly to crises anywhere in the world and to conduct sustained operations in areas where we do not have airfields or other major land bases.

To revitalize our amphibious assault capabilities, we are building new high-speed, air-cushioned landing craft and two new classes of amphibious ships. By the middle of the next decade, we will have expanded our amphibious lift capacity by one-third, allowing assaults to be launched from points over the horizon, thereby reducing vulnerability and increasing the likelihood of surprise. Ship-to-shore mobility will be enhanced by the powerful CH-53E helicopter, now joining the force in large numbers, and the new JVX tilt-rotor aircraft under development. Once ashore, our Marines will be provided greater mobility and firepower by the Light Armored Vehicle (LAV), three battalions of which will have been deployed by the end of FY 1986.

The Soviet submarine fleet, long the world's largest, has recently undergone significant improvements in lethality and detection avoidance. For example, the Oscar-class nuclear-powered cruise missile submarine, introduced in 1981, is about twice as large as our Los Angeles-class submarines, carries 24 long-range SS-N-19 antiship missiles, and incorporates important qualitative advances in sound quieting and self-protection. New Mike- and Sierra-class submarines boast similar improvements. And the Soviets continue to build submarines at a rapid rate, launching a total of seven over the last year alone.

We are working hard to improve our ability to locate and combat enemy submarines. One example is a new attack submarine that we plan to begin producing near the end of this decade. A key design objective is to build a quieter boat with better sensors that will enable it to hunt down and engage enemy forces without itself being detected. At the same time, we are continuing to construct improved versions of the Los Angeles-class attack submarine as replacements for older boats approaching obsolescence; 29 of the 48 Los Angeles-class boats authorized to date are now operational. In addition, LAMPS helicopters, new towed-array sonar systems, and lightweight torpedoes are upgrading the antisubmarine capabilities of our naval surface and air forces.

The growing threat to our fleet from the air is no less worrisome than the submarine threat. The addition of 30 new Backfire bombers to the Soviet inventory each year raises the threat of antiship missile attacks over large sectors of the world's oceans. The Soviets are producing several types of antiship missiles, capable of being launched from aircraft, surface ships, and submarines. These missiles travel to their targets at high speeds, and follow elusive flight profiles. Our defenses against them will be improved by the wide-area surveillance systems now under development and by strengthened area air defense systems. Central to those efforts is the development of tactical over-the-horizon radars that will be able to detect enemy aircraft hundreds of miles away, thus enabling our land- and carrier-based interceptors to mount a more effective defense of our ships at sea. Likewise, the deployment of new CG-47 cruisers and DDG-51 destroyers, both of which incorporate the Aegis air defense system, will improve our ability to intercept high-speed cruise missiles and aircraft at extended ranges. Ultimately, we plan to build a total of 27 Aegis cruisers and 29 DDG-51 destroyers.

c. Tactical Air Forces

Well-trained and properly equipped tactical air forces can quickly destroy targets on land and at sea, as well as provide an air defense umbrella in support of ground and naval forces worldwide. Our forces have long been considered superior to the Soviets in air combat capabilities, but that advantage has been diminishing in the face of an aggressive modernization of the Soviet air forces. The

Soviet Union now has more than 5,000 tactical aircraft in its inventory and is continuing to produce aircraft at rates higher than our own. New generations of Soviet fighters, attack aircraft, and bombers, complemented by an early warning aircraft similar to our AWACS, now challenge our air superiority.

To retain our qualitative edge in this area, we must continue to improve our tactical aircraft inventory. To that end, we are acquiring systems that will allow for rapid, multiple engagements beyond visual range, while being highly maneuverable and lethal at close-in ranges.

The Navy is modernizing its carrier-based force of combat aircraft. The F-14, our primary fleet air-defense fighter, and the long-range Phoenix missiles it carries are being upgraded to improve their ability to cope with the more sophisticated electronic countermeasures employed by new Soviet bombers and air-to-surface missiles. By the end of the decade, all of the Navy's fighter and medium-attack squadrons will be equipped with F-14s and A-6Es, and the F/A-18 will have replaced almost 80 percent of the A-7E light-attack inventory.

The Air Force is continuing to modernize its F-15 and F-16 forces. Since 1980, it has more than doubled its inventory of F-15s and F-16s, bringing the combined total to nearly 1,400 aircraft. These planes, flown by Israeli pilots in Middle Eastern operations, have repeatedly proved their superb combat capabilities against both air and ground targets. New, more durable, and easier-to-maintain engines, scheduled for installation on the aircraft in the early 1990s, will further enhance their combat effectiveness.

Aerial combat in the Middle East and in the South Atlantic also demonstrated the lethality of U.S. air-to-air missiles. Armed with new systems such as the Advanced Medium-Range Air-to-Air Missile (AMRAAM), our fighters will be more effective in aerial combat, and our F-16s will, for the first time, be able to engage enemy forces well beyond visual range.

The Air Force is also upgrading its inventory of ground-attack systems. Currently in development are a new airborne targeting system, the Low-Altitude Navigation and Targeting Infrared System for Night (LANTIRN), and new infrared air-to-surface missiles that will allow F-15Es, F-16s, and A-10s to strike enemy targets whenever they present themselves. Finally, some squadrons of B-52G aircraft have been assigned general purpose missions, such as minelaying, antiship attack, and conventional bombing, supplementing their strategic duties.

Overall, our inventory of tactical aircraft has grown by the equivalent of two wings over the past four years. Over the next five years, we plan to buy 1,284 fighter and attack aircraft for the Air Force and 954 for the Navy and the Marine Corps. This will allow us to reach our goal of 14 carrier air wings by FY 1987, and of 40 Air Force tactical fighter wings by FY 1991.

d. Projection Forces

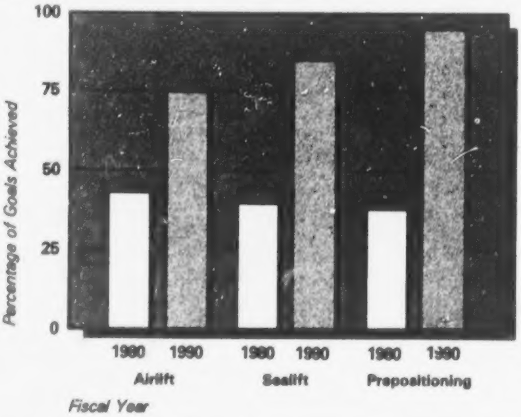
Our forward-defense strategy dictates that we be able to conduct concurrent deployments to widely separated areas of the globe. Our present goal is to achieve the capability to deploy forces to a remote theater such as Southwest Asia, while maintaining an acceptable capability to reinforce NATO and key areas of Northeast Asia.

Further, we must be capable of sustaining our forces once deployed and of redeploying them in response to changing regional priorities or conditions. Forces able to meet these combined objectives should be adequate for virtually any contingencies we might face.

The ability to respond promptly on warning of an attack requires a heavy reliance on airlift and prepositioning. Although the combat units deployed by air would constitute only a small fraction of the total force required for a conflict in an area such as Southwest Asia, they would be essential to preempt the enemy from seizing critical facilities. The units' early arrival in the theater could be necessary to slow the advance of an enemy force and to protect the ports and other facilities that would serve our main forces, which would deploy by sea. In Europe, U.S. forces deployed entirely by air and equipped with prepositioned materiel would rapidly boost NATO's tactical air power, while contributing most of the ground force reserves needed to stave off a Warsaw Pact breakthrough. We plan to incorporate allied lift assets into our reinforcement efforts to the extent possible. Our NATO and Northeast Asian allies have earmarked a substantial number of ships for the transport of reinforcements to their regions, but because their airlift capabilities are relatively limited, we would have to provide the bulk of the airlift capacity needed for a multitheater deployment.

In four years, we have increased our intertheater mobility capabilities by about 35 percent. Between 1982 and the end of the decade, we will have added 50 C-5B cargo aircraft and 44 KC-10 tankers to the airlift fleet, and modified 19 commercial aircraft to carry military cargo in an emergency. The procurement of new C-17 cargo aircraft and of new equipment for unloading ships in austere ports is especially important to our NATO and Southwest Asian goals.

Chart I.D.3
Progress Toward Mobility Goals



Modifications will be completed in FY 1986 on seven of eight fast sealift support ships, providing an early sealift surge capacity not previously available, and we will have loaded eight maritime prepositioning ships with equipment and supplies for a brigade-size Marine Corps force. Overall, by the end of the decade, we will have increased airlift capacity by 80 percent, sealift capacity by 110 percent, and the amount of materiel prepositioned in key locations by 150 percent (see Chart I.D.3). These improvements will allow us to conduct major concurrent deployments to the most critical theaters if required.

4. Special Operations Forces

The United States must also be prepared to deter and, if necessary, respond to low-intensity conflict -- including terrorism and guerrilla insurgencies -- when our national interests are threatened. Since low-level conflict will likely remain the most immediate threat to free world security for the rest of this century, specially trained forces have been established for such operations. To help others defend themselves, Special Operations Forces (SOF) are heavily engaged in security assistance efforts. In the last ten years, these forces have dispatched some 500 U.S. mobile training teams (MTTs) to almost 60 countries worldwide. Such efforts, while low-key and generally low-cost, provide very large payoffs, strengthening Third World countries and demonstrating our commitment to peace and stability.

Special operations forces provide us the ability to respond to a range of crises in a flexible manner. They contribute to our ability to deter and defeat major conventional attacks through their capability to disrupt an enemy's rear echelons, and to engage in unconventional warfare, psychological operations, counterterrorism, and intelligence missions.

When this Administration took office in 1981, we committed ourselves to rebuilding a capability that had been nearly lost during the 1970s. We undertook a revitalization of our Special Operations Forces, activating a new Army Special Forces Group and a new Navy SEAL team, as well as strengthening undermanned units. More units, including another Special Forces Group and an additional SEAL team, are planned for the coming years, as are new MC-130 Combat Talon aircraft and naval special warfare craft. SOF missions are being realigned to enhance the forces' effectiveness and cohesion. Outdated equipment is being replaced, and better training and logistical support are being provided to the forces. The completion of this multiyear effort will require continued congressional support.

5. Reserve Forces

Under the Total Force Policy, the Reserve Components have assumed an increasingly important role in our conventional defense strategy. The creation last year of the position of Assistant Secretary of Defense for Reserve Affairs recognizes the critical role that Reserve Component forces would play in any conventional conflict.

During the past four years, we have upgraded significantly the combat capabilities of the Reserve Components of all four Services. We have, for example, improved the equipment, training, and manning of Army and Marine Corps reserve units. Following the "first to fight, first to be equipped" policy, early deploying Army National Guard and reserve units are receiving modern weapons systems before later-deploying active duty units. In FY 1985, these units are scheduled to receive more than 10,000 new items of equipment costing about $1.4 billion -- including 180 M1 tanks, 64 BFVs, and 8,000 modern support vehicles. New Marine Corps equipment includes KC-130T tanker aircraft and M198 howitzers. Guard and reserve units are also benefitting from the more rigorous training afforded by increased participation in realistic field exercises.

Under the Total Force Policy, the Naval Reserve is continuing its most ambitious expansion since World War II. The Navy's reserve structure is being simultaneously enlarged and modernized, to meet the needs of a 600-ship fleet and to strengthen the contribution of reserve forces across the entire spectrum of warfare. Overall, the end strength of drilling reserve units will have grown by 30 percent by FY 1989, and their equipment inventories will have been substantially upgraded. Naval Reserve pilots are now flying the F-14 and the F-4S, and are training in the F/A-18. By the end of FY 1985, we will have transferred 11 modern FF-1052 and FFG-7 frigates to the Naval Reserve Force (NRF), leading to a total of 26 reserve frigates by the end of the decade. Based aboard these ships will be the SH-2F antisubmarine helicopters of the three reserve squadrons now being formed. We will depend on the NRF to man almost all of our new MCM-1 and MSH-1 mine countermeasures ships, now under construction. In addition, we are modernizing our 13 reserve squadrons of P-3 maritime patrol aircraft. By FY 1989, we will have completed upgrades to the AN/AQA-7 acoustic processor systems aboard the older P-3 "A" and "B" models now operated by the reserves. As a preliminary step in the eventual transition of the reserves to the modern P-3C aircraft, we have established our first Master Augmentation Unit with two P-3C aircraft. Two more such units are planned in FY 1987-88.

The combat capability of our reserve fighter forces (Air National Guard and Air Force Reserve) has also continued to improve. We have transferred highly capable F-16 aircraft to reserve units, and are replacing early model F-4C/Ds with the more capable "E" version of the aircraft. And in FY 1986, we will introduce F-15 air superiority fighters into the reserve inventory.

In addition to deploying more modern systems with our reserve forces, we are upgrading the combat capabilities of the aircraft. Enhancements include the equipping of fighters with advanced AIM-9L air-to-air missiles and with low-smoke engines and improved radar-warning receivers. The forces are receiving modern air-to-air and air-to-ground munitions, along with the advanced training needed to employ these weapons effectively.

Reserve forces also are being modernized through the transfer of long-range C-141 and C-5 transport aircraft to the Air Force Reserve and Air National Guard. These transfers expand upon the successful Associate Reserve Program, under which active and reserve units are collocated. Modernization of shorter range airlift forces continues as new C-130 aircraft are brought into the air reserve inventory. This force expansion is in keeping with the objective of transferring to the reserves those missions that are cost-effective and do not decrease the combat capability of the Total Force.

6. Mission Allocation and Force Integration

For years critics have argued, with considerable persuasiveness in some instances, that our basic allocation of missions among the Services, established in the aftermath of World War II, was not properly attuned to the demands of modern warfare. This Administration has encouraged the harmonization of military missions and integration of operations wherever possible, and significant progress is being made in these vital areas. For example, recent naval exercises in the Northwest Pacific and Sea of Japan reflected an unprecedented degree of Air Force support for the Navy in the areas of aerial refueling, surveillance, and C^3I. And the Army and Air Force chiefs, working closely together, have now crafted a series of initiatives -- covering planning and procedures, joint studies, operational doctrines, systems development and procurement, and basic mission allocations -- that collectively will improve our combat capabilities and DoD's overall management efficiency. For example, it was agreed that the Army would assume responsibility for all ground defense of our air bases beyond their perimeters, with the Air Force transferring Reserve Component manpower to the Army to aid in this task if necessary. Of the 31 Army and Air Force initiatives agreed to, seven have been completed, and the remainder will be under way by early 1985. We feel this effort merits strong congressional support, and we will continue to look for other opportunities to make our various military forces operate more effectively together.

7. Joint Chiefs of Staff (JCS) Special Fund

In 1981, this Administration developed the idea of giving our field commanders direct responsibility for allocating a very small portion of DoD's budget directly for high-priority operational needs that could not be met in a timely fashion through the normal budgeting process. The JCS Special Fund, as this program is now called, would be monitored by the JCS, but the CINCs themselves would initiate all requests for its use. We try to decentralize budgeting control to the lowest practical level, and we strive to enhance the day-to-day readiness of our current forces. Even though there are expressed congressional desires, the program has yet to achieve full congressional backing. We hope that the Congress will appropriate the $50 million requested to start this effort in FY 1986, and will consider favorably future requests for larger amounts if our first year's experience is a success, as we fully anticipate it will be.

E. NUCLEAR POLICIES AND PROGRAMS

1. Deterrence: The Policy and the Challenge

This year marks the fortieth anniversary of the end of World War II and of the use of atomic weapons to bring that conflict to a close. During the past four decades, there has been no armed conflict between the United States and the Soviet Union, or between NATO and the Warsaw Pact. Unlike the first 45 years of the twentieth century -- in which we witnessed two global conflagrations -- there has been peace among the major powers during the past 40 years. These years also represent the longest continuous period of peace Europe has known since the early nineteenth century. This is no accident. It is, in large measure, a result of the policy of deterrence adopted by the United States and the Western democracies in the wake of World War II, a policy designed to deter any aggression, either conventional or nuclear, against ourselves or our allies.

The awesome destructiveness of modern warfare, coupled with the introduction of nuclear weapons, has made the prevention of major conflict imperative. U.S. policy is based upon this principle. But this recognition on our part alone is not sufficient to prevent the outbreak of war; it is essential that the Soviet leadership understand it as well. As the Scowcroft Commission's first report stated so succinctly:

> ***Deterrence is not an abstract notion amenable to simple quantification. Still less is it a mirror-image of what would deter ourselves. Deterrence is the set of beliefs in the minds of the Soviet leaders, given their own values and attitudes, about our capabilities and our will. It requires us to determine, as best we can, what would deter them from considering aggression, even in a crisis — not to determine what would deter us.***

We are under no illusions about the dangers of nuclear conflict. I can think of no clearer or better statement of U.S. policy than that which President Reagan has made on numerous occasions: "A nuclear war cannot be won and must never be fought." Even a cursory glance at our nuclear force structure and modernization plans makes clear that this in fact is our policy: we do not have, nor do we seek, a first-strike capability; we do not have a "nuclear warfighting" posture; all of our exercises and doctrine are defensive in nature.

Unfortunately, we face an adversary whose collective leadership has, through its strategic force deployments and exercises, given clear indications that it believes that, under certain circumstances, nuclear wars may be fought and won. The Soviets' development of a potential first-strike force of SS-18s and SS-19s, their plans to reload ICBM silos, the refire missiles associated with systems such as the SS-20, the extensive hardening of key assets, and the amounts they spend on civil defense are all indicators of such an attitude.

As a result, it is our task to ensure that the Soviet leadership, in calculating the risks of aggression, recognizes that because of our retaliatory capability, there are no circumstances in which it would benefit them to attack us or our allies at any level.

In the final analysis, effective deterrence requires not only that we have the capability to respond adequately to any aggression but also that we be perceived by potential adversaries as having that capability. If Soviet leaders understand that a nuclear conflict could lead to the destruction of those military, political, and economic assets they value most highly, Soviet plans for aggression lose whatever attractiveness they might otherwise hold, and the risk of war is diminished. Accordingly, we must have sufficient forces to make certain that the Soviets understand clearly that we can and will deny them their objectives at any level of conflict they might contemplate.

a. Flexible Response

By 1961, Soviet nuclear capabilities had grown to the point that the inflexible U.S. strategy of massive retaliation was no longer credible. Consequently, the Kennedy Administration formulated a strategy of flexible response that combined a wide range of conventional and nuclear capabilities to enforce deterrence. Today, some 24 years later, U.S. policy remains one of deterrence through flexible response. To be sure, as the Soviet threat has evolved, so too has our strategy of flexible response. Additional response options and capabilities were built into our nuclear plans and our forces in order to maintain deterrence in the face of Soviet developments. Each of the changes under succeeding administrations had been designed to ensure that the United States possesses the capability to meet aggression at any level an adversary might contemplate -- and thus to prevent it.

Unfortunately, many who have chosen to criticize the evolution of U.S. nuclear strategy seem to measure our current deterrent requirements against some threat of days past, thereby wishing away the reality of emerging imbalances. For example, in 1974, Secretary Schlesinger's nuclear policy modifications were met with concern and misunderstanding. Yet his important step, which increased the flexibility with which a President might respond to an attack (and therefore our ability to deter one), was denounced by some as a move toward "nuclear warfighting." The same thing occurred in 1980 to Secretary Brown. The Reagan Administration has not been spared similar criticism and misrepresentation. The fact remains, however, that deterrence through flexible response continues to be our policy and strategy today, and it will remain so throughout the President's second term. The fact also remains that any discussion of the nuclear strategies needed to deter Soviet attacks always brings forth denunciations of those who discuss or have to deal with these matters.

In order to ensure deterrence, we need to think about and plan against possible failures of deterrence. While we cannot predict how a conflict would escalate should deterrence fail, the credibility of our deterrent forces increases as we demonstrate flexibility in our response options and in our forces. That flexibility offers the possibility of terminating a conflict and reestablishing deterrence at the lowest level of violence possible, avoiding further destruction. Although there is no guarantee that we would be successful in creating such limits, there is every guarantee such limitations would not be achievable if we do not attempt to create them. Flexible response does not, however, imply that we seek to fight a limited nuclear war or, for that matter, to fight a nuclear war under any conditions. It does imply our profound belief that, if we have the capability to present the Soviet leadership with unacceptable consequences at any level of aggression of which they are capable, then that aggression will not occur in the first place.

b. Coupling: The Conventional-Nuclear Linkage

To enhance deterrence in NATO, we have for many years stationed nuclear forces in Europe. Many of those delivery systems are "dual-capable," meaning they can use both conventional and -- with proper authorization from the President and in consultation with our allies -- nuclear weapons. These nonstrategic nuclear forces, along with conventional forces provided by the United States and other NATO nations, constitute the front line of defense against any Warsaw Pact aggression. All of our nuclear forces are governed by a single coherent policy that governs the linkage among our conventional, non-strategic nuclear, and strategic nuclear forces. Therefore, the Soviets must understand that an attack on NATO constitutes an attack on the United States and risks the engagement of U.S. nuclear forces.

It is important to note that, in addition to providing a range of nuclear options for deterrence, the adoption of the flexible response strategy in the 1960s also had as a goal improving NATO's conventional capabilities so as to reduce reliance on nuclear weapons to deter or cope with a nonnuclear attack. Unfortunately, neither we nor our allies ever fully met this goal. Thus, with our present effort to increase our conventional strength, NATO is essentially seeking to secure a long-established but elusive goal. The greater urgency with which we have approached this task stems from the fact that, over the past decade, the Warsaw Pact has strengthened its nonnuclear as well as its nuclear forces to a far greater extent than has NATO.

The very purpose of our effort to strengthen conventional forces is to lessen NATO's reliance on the threat to use nuclear weapons to stop a conventional attack. If it is clear to the Soviets that a conventional assault cannot produce a victory, either through a quick campaign or by outlasting NATO in conventional combat, then no rational Soviet planner would launch such an assault in the first place. But we cannot allow our security to rest entirely on the calculations of a Soviet planner as to whether he can successfully attack and invade NATO Europe with his conventional military power. As a result, in addition to our conventional modernization and sustainability programs, our nuclear forces remain an important element in deterring a Soviet attack, especially one supported by nuclear weapons. If the Soviet leadership is aware that NATO will respond to an attack with all the means necessary to defend itself and prevent the USSR from achieving its war aims, then deterrence is strengthened, and the chances of both conventional and nuclear war are reduced.

c. Deterrence at Sea

The United States also deploys dual-capable weapons systems aboard a wide variety of ships. In addition to deterring Soviet first use of similar nuclear weapons at sea, U.S. nuclear antiair and antisubmarine weapons provide unique capabilities that serve as a hedge against a massive and catastrophic failure of our conventional systems. Nuclear-capable carrier-based aircraft and nuclear Tomahawk sea-launched cruise missiles have three vital roles:

contributing to our nuclear reserve force; providing a worldwide deterrent presence; and deterring attacks on our naval forces by Soviet nuclear antiship missiles (especially those aboard Backfire and Badger bombers). U.S. sea-based nuclear forces, along with our land-based forces, support our policy of confronting the Soviet leadership with uncertainty and risk should they contemplate a nuclear war at sea.

2. The Emergence of Nuclear Imbalance

Throughout the 1960s, the United States possessed a strong deterrent, and as a result, the nuclear balance between the United States and the USSR was extremely stable. Our nuclear posture confronted the Soviet leadership with a retaliatory capability sufficient to deny any aggressive ambitions it may have harbored. The United States attempted to maintain this stability by initiating the SALT talks in November 1969. During the negotiations, the United States did not add any strategic launchers to its forces. Indeed, it publicly stated that it was freezing its launcher levels at their 1967 totals and signalled its willingness to see the USSR build up to parity. In contrast, over the next three years of negotiations, the USSR added about 500 ICBM launchers and quadrupled the size of its SLBM force.

The SALT I Interim Agreement on Offensive Arms, signed in 1972 after three years of negotiations, froze the number of ICBM launchers then operational or under construction, while permitting an increase in SLBM launchers up to an agreed level.[1] Qualitative aspects of the arsenals, however, were not addressed. Left unconstrained were the number of weapons on strategic delivery vehicles,[2] the accuracy of those warheads, and the individual throw-weight of the vehicles. When SALT I was signed, the USSR had roughly 2,300 strategic weapons. In 1972, the throw-weight of the entire Soviet ballistic missile force was about 3 million kilograms, and while we had provided some degree of hardening to our 1,000 Minuteman silos, the entire Soviet force could have destroyed only about 200 of the silos.

Negotiations for SALT II began in November 1972 and lasted seven years, spanning three administrations. By the time an agreement was signed by former President Carter and the late Secretary General Brezhnev in June 1979, the Soviet strategic arsenal had more than doubled to roughly 5,500 strategic weapons, with a ballistic missile throw-weight of about 4 million kilograms, enabling the force to destroy promptly about 1,200 hardened targets. Today, the Soviet arsenal contains over 8,000 strategic ballistic missile warheads.

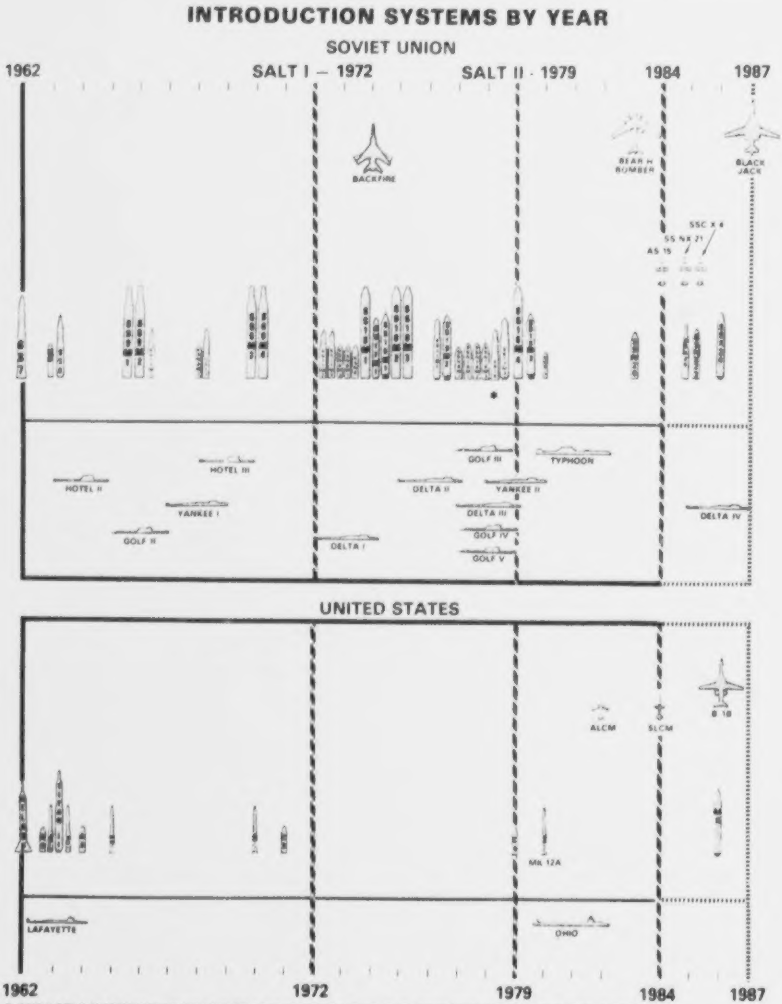
---

[1] At the date of signing, the United States had 1,054 ICBM launchers with no additional ones under construction; the USSR had 1,618 launchers either operational or under construction. Under the terms of the accord, the United States was permitted to increase its 656 SLBMs to 710 if it retired 54 older ICBM launchers (an option we did not exercise at the time); the USSR was permitted to increase from 740 to 950 SLBMs, if it retired older ICBM launchers -- an option it did exercise.

[2] Indeed, in the SALT I ratification hearings, the Nixon Administration noted that the U.S. lead in warheads, and our ability to increase that lead further through MIRVing, were an adequate offset to the Soviet superiority in launchers.

This growth in Soviet capabilities reflects the fact that, during the 1970s and continuing to this day, the Soviet Union has been making major qualitative and quantitative improvements in both its offensive and defensive strategic systems that have significantly altered the strategic balance. The following chart illustrates the tremendous magnitude and pace of the Soviet effort.

Chart I.E.1
Introduction of Strategic Systems



* AVAILABLE INFORMATION ON THE SS-16 IS INCONCLUSIVE, BUT INDICATES PROBABLE DEPLOYMENT

The Soviet buildup encompassed all aspects of their nuclear capabilities: long-range aviation, the strategic submarine force, and the land-based missile force. Of greatest concern for strategic stability, however, was the development and deployment of the SS-18 and SS-19 ICBMs. Since the late 1970s, the USSR has deployed more than 300 SS-18s, each twice as large as the U.S. Peacekeeper/MX and capable of carrying ten warheads, and 360 SS-19s, each larger than the MX and capable of carrying six warheads. It would take only a fraction of this force of approximately 5,000 highly accurate warheads -- itself representing only a portion of the Soviet ICBM force -- to destroy most of our land-based missile silos. The emergence of this potential first-strike force occurred fully within the restrictions of SALT I and those being discussed for SALT II. And, perhaps most disconcerting, it occurred despite the fact that in the mid-1970s the United States made a well-publicized choice (of which the Soviets were well aware) to restrict improvements in the Minuteman force's yield and accuracy so as not to threaten the Soviet Union with the creation of a U.S. first-strike capability. That the Soviets did not follow our example in the 1970s must be considered by those who would have us undertake other unilateral restraints today.

In conjunction with their offensive force buildup, the Soviets increased their active and passive defenses in a clear and determined attempt to blunt the effects of a possible U.S. retaliation. This included a modernization of their already large air defense network -- which is today the most sophisticated in the world -- and the development of a new ABM network for the Moscow area. It also included hardening to an unprecedented degree (far above the strength of our Minuteman silos) their ICBM silos and launch facilities, and other key C^3 and leadership bunkers.

The net result of this combination of Soviet defensive measures and U.S. restraint in modernizing its offensive nuclear forces was to allow the Soviet Union a "sanctuary" for its ICBM force and for the other key assets that were protected by hardening. This, combined with the Soviets' ability to attack our Minuteman force using only a portion of their ICBMs, significantly eased the problems of Soviet nuclear planners. They could begin to envision a potential nuclear confrontation in which they would threaten to destroy a very large part of our force in a first strike, while retaining overwhelming nuclear forces to deter any retaliation we could carry out. This ability to conduct a first strike also threatened to make less credible the deterrent linkage between our strategic nuclear force and our forward-deployed conventional and nuclear forces. In addition, the increasing Soviet emphasis on blunting the effects of U.S. retaliation held open the prospect of undercutting deterrence further, because the Soviet leadership could come to believe that their hardening programs would permit them to emerge from a major conflict with their forces, command and control, and other support systems damaged, but still functioning.

The Soviet Union also expanded its intermediate-range and battlefield nuclear forces, including developing an entirely new generation of nuclear artillery and short-range ballistic missiles. Of gravest concern was the wholly unjustified creation and subsequent rapid expansion of the SS-20 missile force. This force, together with other Soviet intermediate-range nuclear forces that can reach Europe and Asia but not the United States, could give the Soviet Union significant coercive leverage, and preclude the Alliance from achieving its objectives in the event of war.

The SS-20 buildup occurred even while the Soviets were conducting a carefully orchestrated propaganda offensive designed to portray the USSR as a peaceful state facing a growing nuclear threat from NATO. In fact, NATO's historic 1979 dual-track decision to deploy 572 cruise and Pershing II ballistic missiles (but to cancel or reduce those deployments if an equitable, verifiable arms reduction agreement was signed) was a studied and measured response to the introduction and rapid growth of Soviet nuclear capabilities as exemplified by the SS-20 force. At the time of the NATO decision, the Soviets already had 140 SS-20 missiles. Over the next four years, years in which NATO did not deploy a single Pershing II or ground-launched cruise missile despite strident Soviet propaganda claims that NATO was increasing the threat to peace in Europe, the number of SS-20s almost tripled.

3. Nuclear Modernization

Aware of these disquieting developments, one of my first tasks on assuming office in 1981 was to conduct an evaluation of the state of our strategic deterrent forces. That review produced two major conclusions.

First, the concept of a strategic triad provides an indispensable element of deterrence. The combined effect of having three complementary legs complicates Soviet attack planning and any efforts to prevent U.S. retaliation. The existence of the three legs provides, in addition, an important hedge against the possibility that a single Soviet technological breakthrough could threaten our overall deterrent capability. By maintaining a triad of forces, we compel the Soviet Union to disperse its resources against three components, preventing if from concentrating its considerable resources on defeating only one or two U.S. strategic systems. The strengths of each triad leg not only complement the strengths of the other two but also compensate for their weaknesses. To deter successfully all types of nuclear attack, our forces as a whole must possess a number of characteristics and capabilities -- including survivability, prompt response, endurance, mission flexibility, and sufficient accuracy and warhead yield -- to retaliate against hardened Soviet military targets. No single weapon system can incorporate all of these capabilities. Submarines are less vulnerable but they are difficult to communicate with at times, and currently their missiles are less accurate. Bombers are accurate and retrievable, but they are much slower. ICBMs are easier to command and provide a quicker response, but they are more vulnerable than submarines. The three systems together can incorporate all of the elements necessary to deter any type of nuclear attack. Thus, the key advantage of the triad is that it provides an important measure of strategic stability.

The second conclusion of my review was that the triad we inherited had deficiencies and was becoming obsolete in all three of its legs. Also, its associated command, control, and communications systems lacked the survivability and endurance necessary to support our nuclear policy. The strategic modernization program begun by the President in October 1981 is designed to address these problems. A little more than three years later, I am pleased to report on our progress.

a. The Support Systems

We are taking steps to ensure that our C^3 systems are survivable and are able to function throughout any sequence of Soviet attacks. We are upgrading our warning networks to ensure that in the event of attack we would have ample time to respond and that we would be able to respond at the proper level of force. We are upgrading our logistics network to ensure that our deterrent forces remain strong and endurable over extended periods, so that the Soviets could not hope to gain an advantage by trying to outlast us in a crisis. All of these qualities are essential to our ability to implement the flexible response strategy.

b. The Bomber Force

While examining the requirements for deterrence, we recognized that an effective bomber contribution is best served by a combination of penetrating aircraft and standoff cruise missiles, which together could stress Soviet air defenses to the maximum degree.

Our B-52 force has served us well; it has adapted to the upgraded Soviet defenses over the last 25 years. And it will serve us for yet a few more years by providing a standoff capability with the cruise missile while we are procuring 100 B-1B bombers to provide a continued penetration capability. We also are developing an advanced technology bomber (ATB), which we expect to begin deploying in the early 1990s. As the ATB is fielded, some of the older B-52G models will be retired, and the B-1Bs will assume the role of cruise missile carrier. This will maintain a mix of cruise missiles and manned penetrators well into the next century.

c. The Submarine Force

The fleet of 31 Poseidon submarines forms the backbone of our sea-launched ballistic missile force. All of these submarines were built in the mid-1960s. In the late 1970s, 12 of these submarines were modified to carry the longer range Trident I (C-4) missile. Neither the Poseidon missile nor the Trident I missile is capable of retaliating against hard targets; furthermore, the Poseidon submarines themselves will approach block obsolescence beginning in the 1990s, when they reach their 30-year service anniversaries. In order to provide for a modern SSBN force in the future, we are continuing to build Trident submarines at a rate of one per year. Four of these SSBNs are already operational carrying the Trident I missile, and a fifth, the USS HENRY JACKSON, will soon begin patrol. To rectify the inability of existing SLBMs to deal with hardened Soviet targets, we are developing the Trident II missile. When deployed at the end of this decade, the Trident II will strengthen our flexible response deterrent by providing an enduring hard-target capability. For the near-term, in accordance with the President's strategic modernization program, we completed development in 1984 of the nuclear Tomahawk sea-launched cruise missile (SLCM) and began deploying the system aboard selected Navy combatants.

d. The Intercontinental Ballistic Missile Force

The Congress is well aware of the controversy surrounding the issue of ICBM force modernization. Through the efforts of the Scowcroft Commission, a genuine bipartisan solution to this formidable problem was developed in 1983 and was subsequently endorsed by both the Administration and the Congress. The solution recommended by the Commission addresses the twin problems of restoring U.S. ICBM hard-target capability, jeopardized by Soviet hardening programs, and of ensuring the survivability of the U.S. ICBM force, endangered by Soviet SS-18 and SS-19 deployments. The solution advanced by the panel calls for deploying two different types of missiles in different basing modes, which together, will restore the viability of the ICBM leg of our triad.

The Peacekeeper missile, scheduled for deployment in selected Minuteman silos in 1986, is the only near-term answer for providing a prompt capability to hold time-urgent hardened Soviet assets at risk. It has been debated for eleven and one-half years. During that time, we have invested over $6 billion in the system. The Peacekeeper force will have all the positive attributes traditionally associated with fixed-based ICBMs, such as high effectiveness across the target spectrum, low operational costs, a near 100 percent readiness level, and highly redundant command, control, and communications links.

The new, small, single-warhead ICBM is being designed to be mobile -- and therefore highly survivable and endurable. It will be deployed in the early 1990s. Together, it and the Peacekeeper will form the backbone of our land-based missile force in the 1990s and into the next century. We are also exploring other techniques to increase the survivability of our silo-based forces through such methods as super-hardening and deep underground basing, in combination with active defenses.

The Congress will face a number of decisions early this spring that are crucial to the Peacekeeper program. The Peacekeeper is an essential element of the triad. It helps to preserve a strong deterrent by offsetting the Soviet hardening program, thus providing a strong incentive for arms reductions agreements.

e. Nonstrategic Nuclear Forces

In accordance with its 1979 dual-track decision, NATO began deployments of Pershing II and ground-launched cruise missiles at the end of 1983 in the absence of an INF arms control agreement and as a response to the unprecedented growth of Soviet nuclear capabilities, particularly the SS-20 force. These deployments continued on schedule during 1984. In accordance with the Alliance program, deployments will continue at a gradual and steady pace over the next four years.

Also under way is the implementation of the October 1983 Montebello decision, in which NATO Defense Ministers mandated the withdrawal of 1,400 nuclear weapons from NATO's stockpile over the next several years. These reductions are consistent with Alliance policy that the number of nuclear weapons in the stockpile should be at the lowest level commensurate with our security needs. Steps are also under way within the Alliance to improve NATO's nonstrategic nuclear forces in accordance with the Montebello mandate so as to ensure that the nuclear weapons stockpile retains its capability to deter aggression, even in the face of increasing Soviet theater nuclear capabilities.

4. The Strategic Defense Initiative

What if free people could live secure in the knowledge that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?

President Reagan's historic speech on March 23, 1983, challenged the notion that we must always remain hostage to enemy ballistic missiles. Much has happened since then. The FY 1985 DoD budget, submitted to the Congress a year ago, contained a research program restructured on the basis of technology and policy analyses conducted in 1983. This new program focused our efforts on powerful new technologies that may provide options for an effective defense against ballistic missiles. In early 1984, I created a new organization within DoD, the Strategic Defense Initiative Organization (SDIO), directly responsible to me. Under able leadership and with the assistance of the Joint Staff, Service staffs, and various elements of OSD, the SDIO is directing research into the vast array of technologies applicable to the new weapons, sensors, and data-processing capabilities required for a task of this magnitude.

As a broad research program, the SDI is not based on any preconceived notions of what an effective defense system would or should look like. A number of different concepts, based on a range of promising technologies, are being examined, but no single concept or technology has yet been identified as the best or most appropriate one.

The goal, however, is clear and unchangeable:
It is to secure a thoroughly reliable defense against all incoming Soviet missiles, either intermediate or long-range, and to destroy, by nonnuclear means, those missiles before they get near any target.

Effective defenses against ballistic missiles can significantly enhance deterrence. Such defenses could increase an aggressor's uncertainties regarding the ability of his weapons to penetrate them and destroy their intended targets. If the Soviet leaders were ever to contemplate initiating a nuclear attack, their purpose would be to destroy U.S. and NATO military forces that would be able to oppose their aggression. Yet, it would be very difficult for Soviet military planners to predict the likely outcome of a nuclear attack in the face of strategic defensive systems. Defenses that could deny to Soviet missiles the objectives of an attack, or deny to the Soviets confidence in the achievement of those objectives, would discourage them from even considering such an attack, and thus be a highly effective deterrent.

Based on our research so far, we cannot now say how soon we will be in a position to make decisions on defensive options; nor can we today describe all the forms such defenses could take. Clearly, Soviet military planners and scientists are confident that strategic missile defenses will be effective. Their extensive effort to acquire such defenses provides ample evidence of their conviction, as does their major effort to stop us from proceeding with our own defense initiative.

We all recognized from the outset that a complete system, or combination of systems, of strategic defenses could not be deployed overnight. There could well be a transitional period when some defenses would be deployed and operating before others might be ready.

Some have argued that such a transition would be particularly dangerous; that it would upset the present deterrent system without putting an adequate substitute in its place. The opposite is the case. If properly planned and phased, the capabilities deployed first would strengthen our existing deterrent. In fact, the initial capabilities could make a major contribution to the prevention of nuclear war before a fully effective system is deployed, because they would create many of the same uncertainties for Soviet planners that a fully deployed system would engender.

Thus, based on a realistic view of Soviet military planning, the transition to strategic defense would not be destabilizing. On the contrary, initial defense capabilities would offer a combination of benefits. They would contribute to deterrence by denying Soviet attack goals. Should deterrence ever fail, they would save lives by reducing the scope of destruction resulting from a deliberate Soviet attack. And, in the case of an accidental Soviet launch, defenses would be the only hope for protecting our people. The more effective the defense, the more effective this protection would be.

Nevertheless, we would not want to let our efforts toward a transitional defense exhaust our energies or dilute our efforts to secure a thoroughly reliable, layered defense that would destroy incoming Soviet missiles at all phases of their flight. Such a system would destroy weapons, not people. It would not raise the question of whether we were trying to defend missiles or cities. We would be attempting to destroy Soviet missiles by nonnuclear means before Soviet missiles could approach any targets in the United States or the territory of our allies. The choice, therefore, is not one of defending people or weapons.

a. The Strategic Defense Initiative and The Defense of Allies

Because the security of the United States is inextricably linked to the security of our friends and allies, the SDI program will not confine itself solely to an exploration of technologies with a defensive potential against ICBMs and SLBMs. We will also examine, and at the same time work to achieve, technologies that will be effective against shorter range ballistic missiles. Indeed, there is reason to believe it will be at least as easy to destroy lesser range missiles as to destroy ICBMs. Throughout 1984, we held extensive discussions with our allies on the SDI effort. Given its potential contribution to collective security, SDI will be a major topic of mutual interest, and therefore will continue to be discussed with our friends and allies over the months and years ahead.

An effective defense against shorter range ballistic missiles could have a significant impact on deterring Soviet aggression in Europe. Soviet doctrine stresses the use of conventionally armed ballistic missiles to initiate rapid and wide-ranging attacks on crucial NATO military assets throughout Europe. The purpose of this tactic is to reduce NATO's ability to resist effectively the initial thrust of a Soviet conventional attack and to impede NATO's ability to resupply and reinforce its forces from outside Europe. By reducing or eliminating the military effectiveness of such ballistic missiles, defensive systems have the potential for enhancing deterrence not only of nuclear war, but of conventional war as well.

Over the next several years, the United States will continue to work closely with its allies to enhance security. In the event that a decision to deploy defensive systems is made, consultation with our allies will play an important part.

b. Hedge Against Soviet Defensive Technology Program

Some critics of the President's Strategic Defense Initiative have the misconception that this increased emphasis on defensive systems is solely a U.S. initiative, which will alter the strategic balance. This is not the case. The Soviet Union has always considered defense to be an important and natural part of its national security policy. The extensive, advanced Soviet air defense network and the Soviets' large civil defense program are obvious examples of the priority they have attached to strategic defenses. In addition, the Soviets have for many years been working on a number of technologies, both traditional and advanced, with a potential for effectively defending against ballistic missiles. The Soviet Union currently is upgrading the capability of its Moscow ABM defense system -- the world's only operational ABM system. The Soviets also are engaged in research and development (R&D) on a rapidly deployable ABM system that raises concerns about their potential ability to abrogate the ABM treaty and deploy a nationwide ABM defense system within the next ten years should they so choose.

In addition to these ABM efforts, the Soviet Union is deploying a new surface-to-air missile system, the SA-10, and is flight testing another, the SA-X-12, both of which we believe can intercept some types of ballistic missiles. These air defenses and their radars are of concern because of their potential to provide the Soviet Union and its Warsaw Pact allies some degree of ABM protection -- all within the bounds prescribed by the ABM treaty.

Since the late 1960s, the Soviet Union also has been pursuing a substantial advanced defensive technologies program -- a program that has been exploring many of the same technologies of interest to the United States in the SDI program. In addition to covering a wide range of advanced technologies, including various laser and neutral particle beams, the Soviet program is much larger than the U.S. effort in terms of the amount of resources invested -- plant, capital, and manpower. These efforts could lead to the testing of space-based ABM systems in the mid-1990s and to their deployment after the turn of the century. The President's initiative, therefore, is being pursued in part as a prudent response to Soviet R&D activities in this field and as insurance against unilateral Soviet efforts to develop and deploy an advanced defensive system. A unilateral Soviet deployment of such advanced technologies, in concert with the Soviet Union's massive offensive forces and its already impressive air and passive defense capabilities, would make this a far more dangerous world than it is now.

These Soviet programs amply demonstrate that the Soviet Union does not feel restrained by the ABM treaty's prohibition against a widespread defense against ballistic missiles. Consistent with the importance Soviet doctrine places on defense, if the Soviets were to develop such a system as a result of their intensive research program, in all probability they would deploy it.

In the near term, the SDI provides a powerful deterrent to a potential Soviet breakout from the ABM treaty, a prospect made more worrisome by recent compliance questions -- such as the construction of a new Soviet radar, which almost certainly is in violation of the ABM treaty. The SDI research program also makes clear that the United States takes seriously the Soviet buildup in offensive arms.

In the long term, SDI may provide the means by which both the United States and the Soviet Union can safely agree to very deep reductions and, someday, even the elimination of nuclear arms. We have sought to engage the Soviet Union in comprehensive discussions on how to make arms reductions more effective in the near term and on how to provide a safer future for all mankind.

F. ARMS REDUCTIONS AND RELATED DIPLOMATIC PRIORITIES

Our overall national security policy complements military strength with active diplomacy to maintain the peace and reduce tensions.

1. Nuclear Arms Reductions

The United States has long exercised restraint in its nuclear posture. We now have 25 percent fewer nuclear warheads and 75 percent less nuclear explosive power (measured in megatonnage) than we had in the 1960s. The reductions in our nuclear arsenal during the past two decades attest to our commitment to retain the fewest possible nuclear forces consistent with the requirements of defense and deterrence.

We are in the process of implementing similar substantial reductions in NATO's nuclear arsenal, independent of any arms control agreement. As part of the December 1979 dual-track decision on the modernization of longer range intermediate-range nuclear forces (LRINF), NATO decided to withdraw 1,000 nuclear weapons from Europe, an action completed in 1980, and to remove one nuclear warhead for each of the 572 Pershing II and ground-launched cruise missiles deployed. After careful study of the Alliance's nuclear needs, the NATO defense ministers decided in October 1983 to remove an additional 1,400 nuclear weapons from Europe over the next few years. As a result of those decisions, we will have withdrawn more than five nuclear warheads for each new LRINF warhead deployed -- even if we do not succeed in reaching an intermediate-range nuclear force (INF) arms reduction agreement.

Unfortunately, the Soviet performance has been quite different. Rather than reducing, or even curbing the growth of its nuclear arsenal, the Soviet Union has engaged in an unprecedented and relentless expansion of its nuclear forces. Disregarding our efforts to establish a stable balance at lower force levels, the USSR took advantage of U.S. restraint to try to achieve clear nuclear superiority. As a consequence, the United States has gone as far as it should with unilateral nuclear arms reductions. Further reductions must be negotiated bilaterally.

The United States is committed to far-reaching nuclear arms reductions that are equitable and verifiable and increase international stability and security. The approach taken by earlier agreements like SALT I and II, which simply limited, and thereby legitimized, future growth is not enough; at best, they can only divert us from the real goal of actual reductions. Furthermore, the record of Soviet noncompliance with earlier arms control agreements demonstrates how vital it is that future accords be precisely drafted, include effective verification provisions, and be complied with by all parties. In this regard, if arms control is to be an effective stabilizing force in the future, it is imperative that the Soviet Union take a more constructive approach to its obligations than it has in the past.

In the Strategic Arms Reduction Talks (START) and the intermediate-range nuclear force (INF) negotiations, the United States proposed deep cuts in nuclear arms, focusing on the systems of greatest concern to each side. In START, we called for a 33 percent decrease in the number of warheads deployed on strategic ballistic missiles. In the INF negotiations, we proposed the elimination -- or at least a substantial reduction -- of U.S. and Soviet LRINF missiles. Additionally, in START we have called for limitations on bombers and other strategic systems. Regrettably, the Soviet Union walked out of the INF talks in November 1983, and shortly thereafter refused to agree to a date for the next round of START.

In June 1984, although the USSR had not returned to either START or the INF talks, it proposed that our two governments meet in Vienna in September to begin "talks to prevent the militarization of outer space." The United States promptly accepted the proposal, and at the same time, made it clear that we considered the most pressing task to be reductions in offensive nuclear arms. The United States pointed out that the militarization of space began when the first ballistic missiles were tested and when such missiles and other weapons systems using outer space were first deployed. Faced with a positive U.S. response to their proposal, the Soviets then demanded that we institute a moratorium on antisatellite (ASAT) weapons tests before opening any talks. That precondition represented an unacceptable attempt to preserve a Soviet weapons monopoly and consequently to weaken U.S. deterrence capability. Since the United States is only now developing an ASAT capability, a testing moratorium would leave the USSR as the only nation with an operational ASAT weapon.

In his September 1984 speech to the United Nations General Assembly, President Reagan suggested a bold initiative to break the impasse in nuclear arms reductions:

We need to extend the arms control process to build a bigger umbrella under which it can operate — a road map, if you will, showing where, during the next 40 years or so, these individual efforts can lead. This can greatly assist step-by-step negotiations and enable us to avoid having all our hopes or expectations ride on any single set or series of negotiations. If progress is temporarily halted at one set of talks, this newly established framework for arms control could help us take up the slack at other negotiations.

After discussing the President's proposal, the United States and the Soviet Union agreed to begin negotiations on the whole range of questions concerning nuclear and outer-space arms. Secretary of State Shultz and Soviet Foreign Minister Gromyko met in Geneva in January 1985 to discuss the agenda and objectives of the negotiations. They agreed that the forthcoming talks would address a complex of questions concerning space and nuclear arms, both strategic and intermediate-range. The timing and location of the negotiations will be arranged through diplomatic channels. We expect that each delegation will be divided into three groups and will address strategic nuclear arms, intermediate-range nuclear arms, and space and defensive arms. In that last forum, we plan to discuss both the means of moving toward a more defense-oriented deterrence, as well as space-based systems that can attack targets in space.

There is a clear relationship among all the different types of arms to be addressed in the negotiations. Since the Strategic Defense Initiative is only a research program, and while we are still many years away from any decision on whether to develop and deploy advanced defenses against ballistic missiles, nevertheless, we are prepared to discuss with the Soviet Union the issue of strategic defense. However, these talks will consider existing Soviet defenses as well as each side's research programs in this area.

The agreement between Secretary of State Shultz and Soviet Foreign Minister Gromyko marks a welcome new beginning. We have a long and difficult task ahead of us, but if we are patient and persistent, I have every hope that we can achieve deep reductions in nuclear weapons along with increased strategic stability, both of which are in the best interests of the United States, the Soviet Union, our allies, and indeed, the entire world. In order to achieve that goal, we must retain the same determination to preserve the military balance that has encouraged the USSR to return to the negotiating table. Our firm commitment to nuclear force modernization, to the continued development of an antisatellite (ASAT) capability, and to strategic defense is vital to the success of the coming negotiations.

While we seek bilateral nuclear arms reductions with the Soviet Union, we must also be attentive to the problem of nuclear proliferation. If the number of nuclear-armed nations were to increase, the risk of nuclear war would grow. Moreover, the spread of nuclear weapons raises the possibility of these weapons falling into the hands of subnational groups. Along with more than 100 other nations, the United States supports the Non-Proliferation treaty, which recognizes the universal interest in controlling the spread of nuclear arms. In recent years, the United States and the Soviet Union have discussed this issue periodically. We have now decided to hold these consultations on a regular basis.

2. Related Diplomatic Priorities

We also are actively engaged in seeking other important force reductions. In April 1984, the United States presented a draft treaty to the Geneva Conference on Disarmament calling for a comprehensive and verifiable global ban on the production, stockpiling, possession, transfer, and use of chemical weapons. To ensure that parties to a global ban would not be able to violate it, as has been the case with the Geneva Protocol forbidding chemical weapons use, the U.S. draft treaty provides for unique, cooperative verification measures.

In the Mutual and Balanced Force Reduction (MBFR) talks, the United States and its NATO allies are negotiating with the Warsaw Pact to reduce conventional forces in Central Europe. NATO has called for reductions to 700,000 ground force personnel and for a combined total of no more than 900,000 air and ground force personnel on each side. Progress in the MBFR talks has been stymied primarily because of the Warsaw Pact's intransigence in agreeing to provide force level data and permit adequate verification measures. In April 1984, the West presented a new initiative designed to overcome those obstacles. It offered Western flexibility on the data question in exchange for Warsaw Pact flexibility on verification.

In other discussions with the Soviet Union, we are seeking agreements on measures to reduce the risk that conflict could ever break out as a result of accident, miscalculation, or misunderstanding.

While such steps -- known as confidence-building measures -- would not affect the level or type of military forces, they could help ensure that those forces are never used inadvertently.

In April 1983, with strong congressional support, I recommended to the President several improvements in the U.S.-Soviet communications network that would significantly enhance our ability to resolve a crisis or avert a misunderstanding. Specifically, I called for the addition of a high-speed facsimile capability to the Direct Communications Link (or "hotline"); the establishment of a Joint Military Communications Link for the transmission of urgent military-related information; and the establishment by both the U.S. and Soviet governments of improved communications with their embassies in each other's capital.

The President endorsed those proposals, and we began negotiating with the Soviet Union in August 1983. In July 1984, the two sides agreed to add a high-speed facsimile capability to the Direct Communications Link (DCL). This modest but positive step will enable the U.S. and Soviet heads of government to transmit messages over the DCL far more rapidly than they can now. For the first time, they will be able to use the DCL to exchange graphic materials such as maps and photographs; that kind of information could be invaluable in helping to resolve an ongoing crisis or military incident.

In his September 1984 United Nations speech, the President suggested several further bilateral measures to enhance U.S.-Soviet knowledge and understanding. These include regular U.S.-Soviet Cabinet-level meetings on a variety of issues, sharing of information on weapons procurement and development plans, exchange of observers at military exercises, and direct measurement of nuclear test yields.

In January 1984, the United States, its NATO allies, the Warsaw Pact, and Europe's neutral and nonaligned states opened the 35-nation Conference on Confidence- and Security-Building Measures and Disarmament in Europe (CDE). Early in the conference, NATO proposed a set of measures designed to reduce the risk of conflict by surprise attack or miscalculation, limit the opportunities to use military force for political intimidation, and enhance communications among the signatory states. These measures include: an open exchange of information on ground and air forces; forecasts and notification of, and observer invitations to, a range of military activities; verification through on-site and aerial inspection; and methods for improved communications.

3. Compliance

As the President stated in his 1984 Report to the Congress on Soviet Noncompliance with Arms Control Agreements, if the concept of arms control is to have meaning and credibility as a contribution to global or regional stability, it is essential that all parties to agreements comply with them. Unfortunately, the Soviet record of compliance is not supportive of this objective. In his January 1984 report to the Congress, the President concluded that the Soviet Union has violated or probably violated several of its major arms control obligations and political commitments.

Thus the Soviets have used, or supported the use of, chemical agents and toxin weapons in Afghanistan and Southeast Asia in violation of the Geneva Protocol and the Biological Weapons Convention. They have violated the Helsinki Final Act requirement of advanced notification of certain major military exercises, and the SALT II limits on encryption of missile test telemetry. A new large phased-array radar that they are now building in the central USSR is almost certainly in violation of the 1972 ABM treaty. The SS-X-25 missile is probably a second new ICBM type, prohibited by the SALT II agreement; if it is not, it violates the SALT II provisions regarding the permitted ratio between the weight of an ICBM reentry vehicle and the missile's total throw-weight. In addition, it is likely that the Soviets have violated the Threshold Test Ban treaty limits on the size of underground nuclear tests, and they probably have deployed SS-16 missiles in violation of SALT II.

In response to additional requests from the Congress, the President will submit a further report of his findings regarding other Soviet arms control noncompliance issues. Furthermore, at congressional request, in October 1984, the President submitted both classified and unclassified versions of an independent review by the bipartisan General Advisory Committee on Arms Control and Disarmament. Based on a year-long analysis, that report cited numerous instances of Soviet noncompliance with arms control agreements over the past 25 years.

Dialogue with the Soviet Union must encompass our compliance concerns as well as our arms control objectives. We are continuing to pursue these issues with the Soviet Union, seeking explanations, clarification, and corrective actions. In current and future arms negotiations, just as in our defense policy, we must take into account the Soviet compliance record as we search for productive avenues to preserve peace and enhance global stability.

G. FACING THE CHALLENGES OF THE 1990s

As a capstone to this overview of defense policy, we should look ahead to the security challenges we likely will face through the end of our program years (1990) and beyond.

Because America's security and economic well-being will continue to depend on events and resources abroad, our vital national interests worldwide will remain at least as extensive as they are today. Our political, economic, and financial ties with other nations will grow as the world becomes more interdependent and more closely linked by improved international communications and transportation.

Unfortunately, there is scant evidence that the diverse threats to world peace and U.S. interests abroad will subside. Because of its unrelenting military investment coupled with an opportunistic foreign policy, the Soviet Union will remain the most serious threat facing U.S., allied, and mutual interests. Moscow's current and past behavior justify no optimistic assumptions about its future intentions. Furthermore, America's interests will also remain threatened by terrorism, the proliferation of arms, low-intensity conflicts, and widespread political and economic instabilities.

The constancy of American interests and the threats facing them suggest that our strategy of deterrence and defense will retain its validity. For that strategy to continue to preserve the peace, America must restore and preserve the military balance. While we have made considerable progress to date, we cannot say that we have finished the task because the Soviets continue to add to their military might, and deterrence is not a static concept. Our nuclear forces must be strengthened to bolster our deterrence and to provide incentives for the Soviets to agree to significant mutual arms reductions. We also need to continue the balanced improvement of our conventional forces, maintaining our progress in readiness and sustainability while persevering in our long-term modernization efforts.

In sum, our future defense efforts should be much like those of the past four years. And if, as we expect, those efforts continue to protect our nation, our allies, and our interests, we will have carried out our primary security responsibility successfully. But many Americans, with characteristic idealism, legitimately may ask if the future might hold the happy prospect of even more hope for all mankind.

There is a brighter message. The most prominent ray of hope is the promise of strategic defense. President Reagan's Strategic Defense Initiative (SDI) is a bold start toward freeing people from the threat of nuclear weapons. We are pursuing new technologies that someday may enable us, if we are completely successful, to reduce substantially, and we should hope ultimately to end, the terror of offensive nuclear ballistic missiles. If we can attain that goal, all nations will become more secure and better in every way.

The President's SDI is just one example, although a very special one, of how the United States and its allies can develop and exploit new technologies to protect our security and freedom more effectively. Other innovations can markedly improve our military capabilities in ways that will enhance our deterrence and defense posture. Advanced technology is an inherent advantage that the West must continue to keep and to exploit in order to ensure the security of us all. America and its allies have not sought to protect themselves by matching their adversary's capabilities quantitatively. In the future, our wisest course will continue to be to seek security through quality of our forces. The intensive development and fielding of advanced technology can enable us to do this in the most achievable and affordable way.

The freedom that we and our allies seek to safeguard fortunately supports economic systems and open societies in which helpful new ideas can flourish. Freedom is the West's foundation for peace. But neither technological advantage nor improved security flow automatically from conditions that support them. We must actively cultivate and protect our technological edge.

The United States is not caught up with the Soviet Union in some spiraling competition that can lead only to more arms and greater budgetary burdens. In fact, from the West's resolve to ensure our security can flow the incentives for our adversaries to agree to diminish their stockpile of arms and curb their aggressive behavior. The Reagan Administration is firmly committed to the achievement of meaningful, verifiable arms reductions. Unfortunately, we cannot predict our success at arms agreements because we do not know how seriously the Soviets will bargain. We do know, as history has shown, that successful bargaining with the Soviets takes patience and firmness. We will continue in future years to take every opportunity to obtain genuine arms reductions. Recent Soviet actions do give us some cause for hope. We trust we will not again be disappointed.

Optimism about the future prospects of peace and freedom is reinforced by renewed confidence in America's leadership in the world. Supporting that leadership role, is a broad-based, bipartisan consensus that we must be strong to protect ourselves and our interests; that realism, not wishful thinking, is the only basis for evaluating our adversaries; that we must deal with the world as it is, not as we would like it to be; that uncomfortable facts of modern life, like nuclear weapons or terrorism, cannot be wished away; and that genuine arms reductions are achievable if we have patience and determination.

More reassuring and cost-effective security is our nation's hope and this Department's mandate. This document highlights what we are doing, and what we need to do, to achieve that end. The key to progress in all we seek, from correcting our military vulnerabilities to attaining arms reduction agreements, is the resolve to stay militarily strong, maintaining the deterrent and defense necessary to preserve peace and freedom.

Part II
Defense Resources

A. THE DEFENSE BUDGET

1. Introduction

Too often overlooked in any discussion of defense requirements is the overriding purpose of America's military forces, that is, to guarantee and maintain peace. It is not really so incongruous that the weapons and equipment that we plan for and buy each year, while implements of war, are also guarantors of peace. Without a firm national resolve reinforced by a strong military force, our adversaries would have no incentive to temper their increasingly global incursions or to negotiate arms reduction. Therefore, America's military forces assume an important function in international diplomacy. In fact, the military's role of peacekeeper is equal in importance to its traditional role of warfighter.

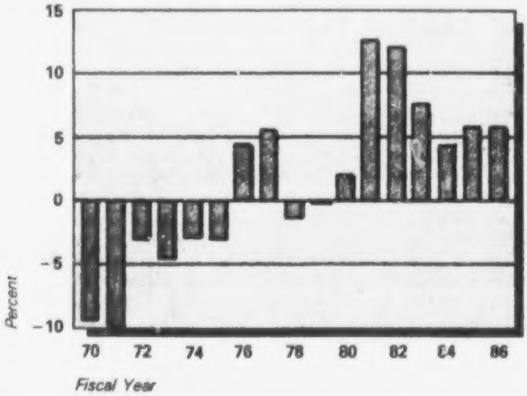
The worldwide presence of our troops in international peacekeeping forces, other deployments, and our ships strategically placed in the Mediterranean, Indian Ocean, and Caribbean all bear witness to America's commitment to the pursuit of peace worldwide. As the Soviets and their allies have projected their military power across the globe, it has been even more crucial that we establish and maintain our own military forces on a global basis. Our naval fleets provide a mobile and impressive presence underscoring our resolve to preserve our national interests and those of our allies. Obviously, this peacekeeping role is dependent upon the existence of a military force of sufficient capability to defend our interests against military threats and foreign aggression. The defense program is designed to meet our worldwide commitments and still provide for increased modernization, improved sustainability, and guaranteed readiness. It reflects security requirements based upon Soviet intentions and capabilities. It is not precisely the program we would most like to have if we lived in a world in which we could make our defense program decisions unilaterally. Unfortunately, we do not live in such a world, so our defense budget and programs are driven by growing Soviet worldwide capabilities.

The determination of the level and mix of budget resources necessary to meet our security requirements is a difficult and complex task. It involves detailed planning, programming, and budgeting efforts at all levels of the Department of Defense. Fundamental to the development of our defense objectives is the determination of the national security requirements of our foreign policy goals and the threats to those objectives. We must develop a strategy to achieve those objectives and identify the manpower, logistics, and materiel requirements to implement that strategy. Finally, we must determine the total level of resources necessary to fund these requirements and their most effective allocation. But even then the process does not stop, for once we receive these resources from the Congress, we must make sure that they are spent efficiently.

Substantial resources are required to preserve and enhance the security of our nation. As history clearly reflects, when there is an extended period of inadequate funding for our national defense, a deterioration of our military capabilities occurs. The funding requirements to restore these capabilities then become even larger and more burdensome. This is exactly the situation we faced in 1981. As Chart II.A.1 shows, DoD budget authority declined during most of the 1970s. The resultant deterioration in the combat readiness and equipment modernization of our forces, combined with an unprecedented growth in Soviet military spending during the same period, had a detrimental effect on our ability to counter threats to our security. Therefore, we must invest increasingly greater levels of resources for defense to rebuild our military strength.

Chart II.A.1

Real Growth in DoD Budget Authority



There was strong congressional and public support for the view that while the nation cannot afford to provide a limitless amount of resources for national defense, it must provide whatever is needed to ensure the future security of our economic and political institutions. The Congress became a full partner in this effort and supported more than 12 percent real growth in defense budgets for both FY 1981 and FY 1982. From FY 1983 to FY 1985, growth in defense budgets increased as well, but at a much lower rate. This was due, in part, to the perceived need by the Congress to trim defense spending, along with other federal spending, as part of the overall fiscal constraint necessary to control the federal budget deficit. However, the slowing pattern of growth reflects an evident weakening of congressional commitment to continued support for the necessary levels of defense funding.

As a result, there has been a loss of momentum in our efforts to achieve our national security goals, and there is considerable concern that a continuation of this loss will eventually undermine the improvements we have made thus far and will indefinitely defer and make more expensive the achievement of an adequate national security posture.

The defense improvements that are currently under way are significant, and we are accruing many benefits from this substantial investment in our future security. A heightened state of readiness, a very high level of morale and combat-effectiveness in our military personnel, and a firm foundation in our modernization program all demonstrate the worth of that investment. Our willingness and ability to support U.S. security interests worldwide have met with the approval and support of our allies. Faced with this increased resolve, the Soviets, following a period of aggression in the mid- to late 1970s, have realized no geopolitical victories in the last four years. But, there is the fear that, having accomplished so much, we may again become complacent and impatient with the continuation of the long, difficult, and expensive task of regaining our deterrent capabilities and studying how to obtain and deploy a thoroughly reliable strategic defense. The Soviets feel they can always outwait us. In doing so, they hope to prevent "impatient democracies" from achieving their goals.

We now face a critical point in our rebuilding program. Our challenge is to sustain the progress we have made to date as we continue the steady march toward our goals. The programs provided for in the FY 1986 defense budget are a necessary part of our ability to meet that challenge.

The FY 1986 defense budget builds upon the foundation laid in FY 1982-85. It reflects not only our efforts to increase the level of national security but also ongoing efforts to improve the efficiency of DoD expenditures and program execution. We have sought to invest our resources wisely, to improve the way we do business, and to attain more efficient production levels for our industrial base. A few headlines (generated by our own audits of past years) notwithstanding, significant progress has been made within DoD in achieving not only more defense but more defense for the dollar. This budget represents our continued emphasis upon good management practices. It reflects known and anticipated benefits from long-term institutional changes designed to address fraud and mismanagement. This is consistent with our stewardship role in providing adequate levels of defense through the most efficient use of our nation's resources.

2. Components of the FY 1986 DoD Budget

Table II.A.1

Department of Defense Budget
($ Billions)

Current-Year Dollars	FY 1984	FY 1985	FY 1986
Total Obligational Authority (TOA)[a]	258.2	285.3	314.4
Budget Authority (BA)[b]	258.2	284.7	313.7
Outlays[c]	220.8	246.3	277.5
FY 1986 Dollars			
Total Obligational Authority (TOA)[a]	279.6	296.7	314.4
Budget Authority (BA)[b]	279.5	296.1	313.7
Outlays[c]	238.3	256.1	277.5

[a] *Total Obligational Authority (TOA)* represents the value of the direct defense program for each fiscal year, regardless of the method of financing.

[b] *Budget Authority (BA)* permits the obligation of funds for immediate and future disbursement and is associated with the year the authority takes effect. Generally the difference between TOA and BA stems from the application of receipts that offset total budget authority.

[c] *Outlays* represent actual expenditures. Less than 62 percent of FY 1986 outlays will result from FY 1986 budget authority; the remainder will come from budget authority provided in earlier years.

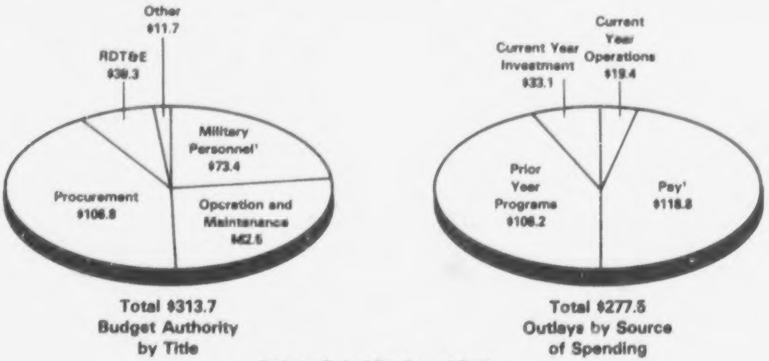
a. Overview

The President's defense budget, shown in Table II.A.1, proposes budget authority (BA) of $313.7 billion for FY 1986. This represents an increase of $29 billion over FY 1985. The tables in Appendix A provide budget data by appropriation title and by component in current and FY 1986 constant dollars.

The distribution of FY 1986 BA by major appropriation title and FY 1986 outlays by source of spending is shown in Chart II.A.2. Operating costs, including Military Personnel (MP) and Operations and Maintenance (O&M) appropriations, represent about 50 percent of DoD's budget authority. This category includes: payments to military and civilian personnel and the accrued retirement cost of the current military force, allocations for maintenance and repair of equipment, and for utilities, medical costs, training, petroleum and lubricants, and spare parts.

Chart II.A.2

FY 1986 DoD Budget
(Dollars in Billions)



[1] Includes Retired Pay Accrual Costs

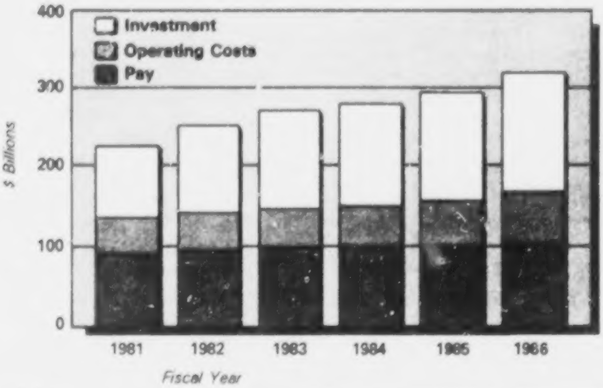
The remainder of the budget contains funds for investment in research and development (R&D), procurement of weapons systems, and military construction and family housing. Of particular importance is the continued development of state-of-the-art, high technology defense systems.

Outlays in FY 1986 again will go primarily for current year operations (7.0 percent), pay and pay-related items (42.8 percent), and prior year investment requirements (38.3 percent). Current year operations relate to the base structure and support costs. Outlays from prior year programs represent amounts already on contract and are largely a function of procurement and R&D investments made in previous years. Only 11.9 percent will be spent on new investment programs.

The FY 1986 budget again provides for real growth in all categories of the defense program (Chart II.A.3).

Chart II.A.3

DoD Budget Shares
(Budget Authority in FY 1986 Dollars)



b. Personnel

The FY 1986 budget includes $103.3 billion to pay our military and civilian personnel. This represents an increase of 1.5 percent in real terms and includes a 1.2 percent growth in Active Component military strength. These added personnel are needed to operate and maintain new weapons systems being deployed as part of our modernization program. Selected Reserve strength will increase by 4.4 percent. This increase will provide further enhancement to our mobilization readiness and warfighting capability, as the Reserve Components provide continued depth and balance to the responsiveness and flexibility of the active force. Civilian strength will increase by 1.7 percent. It is significant that all of our manpower and perpersonnel-related costs total about 45 percent of our budget that the comparable figure in the Soviet military budget is between 10 and 15 percent.

c. Operating Costs

The steady upgrading in the operation and support of our forces to improve readiness and sustainability will continue in FY 1986. Further improvements in materiel readiness are expected as a result of the increased procurement of spares and repair parts, equipment maintenance and modification, and other logistical support. Increased funding will be provided for base maintenance and repair programs.

The Army and Air Force will increase flying hours in FY 1986. The Navy will fund a further increase in ship modernization, fleet outfitting, and aviation depot level repairable parts programs. These increases will enhance the training of all our military personnel in tactical operations and in the operation of sophisticated weapons.

The FY 1986 budget provides for the continued buildup of major and secondary item war reserves in Europe and the further upgrading of existing communications facilities. Increased training and education of officer and enlisted personnel for initial skill and skill progression are to be funded, and much needed improvements are planned for the seriously deteriorating condition of training and medical plant property.

d. Investment

Critical improvements to the modernization of our conventional and strategic forces will be funded in FY 1986. Investment funding, (i.e., procurement, R&D, and military construction) will increase almost 10 percent in real terms. We are emphasizing ground forces modernization by continuing the procurement of 840 M1 tanks and 716 Bradley Fighting Vehicle Systems for the Army.

Significant progress has been made in our shipbuilding program in the past three years. The budget provides for a total deployable battle force of 551 ships. In FY 1986, we will fund 28 ships, including 5 ballistic missile and attack submarines, 3 cruisers, 3 amphibious ships, 8 mine warfare ships, and 9 support ships.

We will continue to modernize and expand our tactical air forces. In support of these plans, and to continue the modernization of existing units, we are requesting funding for 400 additional tactical aircraft for the Air Force, the Navy, and the Marine Corps. Also, we will continue development of a wide range of tactical programs in order to achieve a balanced conventional warfare capability.

This budget continues to implement the President's program to modernize and upgrade all aspects of our strategic forces against a threat that has made significant technological progress in recent years. We plan to continue our commitment to procure several major strategic programs such as the Peacekeeper missile, B-1B bomber, and the Trident nuclear submarine.

The FY 1986 budget request for research, development, testing, and evaluation (RDT&E) reflects real growth of over 20 percent and is highlighted by continuing investment in defense technologies. Of particular importance is continuing research on the Strategic Defense Initiative and developmental work on a small single-warhead intercontinental ballistic missile (ICBM) to ensure the credibility of our deterrent strength into the 1990s.

The Military Construction Appropriation (MCA) request will continue the progress we have made in overcoming prior years' inadequate funding. The modernization of our physical plant and improvements to working and living conditions for our Service personnel are high priorities.

Resources are again provided for the key acquisition initiatives. The budget request includes 6 major multiyear procurements to allow economical lot buys and the more efficient use of production resources. Productivity improvement projects for modernization of tools and equipment for our in-house production operations have been funded. Resources are budgeted for manufacturing technology programs, which develop innovative, more productive processes for manufacturing defense materiel. While these innovations require large near-term expenditures, they should achieve significant outyear savings in major systems costs. They are examples of our commitment to the long-term efficient use of defense resources.

3. Price-Level Assumptions

The level of funding required to accomplish programs in FY 1986 and beyond is dependent on the course of inflation in the intervening years. Estimates of the future impact of inflation on the defense budget are prepared on the basis of guidance furnished by the Office of Management and Budget (OMB). The gross national product (GNP) deflator is used for all purchases of goods and services except major weapons systems and fuel. Special weapons systems commodity inflation estimates have been used since the FY 1983 budget and are based on analyses of historical trends of defense inflation published by the Department of Commerce's Bureau of Economic Analysis (BEA), as part of the offical GNP statistics. Special estimates are also used for purchases of fuel due to the potential volatility of fuel prices.

The use of these special deflators is a major factor in ensuring that DoD's thorough financial management protects the funding integrity of its programs by properly programming for inflation. The budgets for acquisition programs now are prepared in a manner that enables the Congress and others to see what the likely, fully funded costs will be, based on appropriate inflation expectations for several years in the future. This change puts more realistic cost estimates up front, where they should be, and is clearly an important component of improved acquisition management.

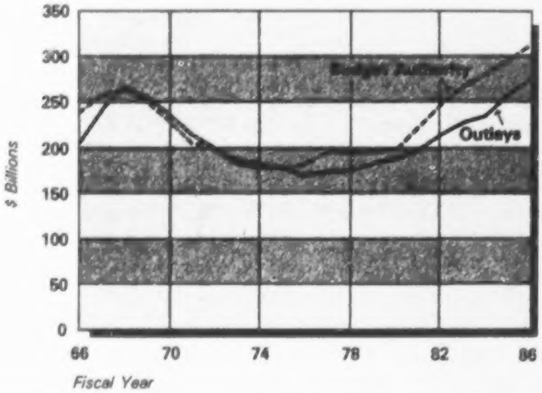
One of the most important benefits of the current economic recovery has been the dramatic decline in the rate of inflation. Today, prices are increasing in the general economy at a rate less than one-half that experienced in 1981. Even though price increases for many defense weapons systems have not declined as sharply during the last three years, the progress made in fighting inflation has played a very positive role in our efforts to meet national security goals with fewer budget dollars. The FY 1986-90 program reflects the assumption that this favorable trend will continue. However, because of the unique nature of price changes for many defense commodities, reductions to the defense budget due to lower inflation trends will be monitored closely to prevent possible underfunding of programs.

4. Budget Trends

The FY 1986 budget continues the well planned growth in defense resources begun in FY 1981 in comparison to the continuous no-growth trend through much of the 1970s when defense spending did not keep up with the level of inflation (Chart II.A.4).

Chart II.A.4

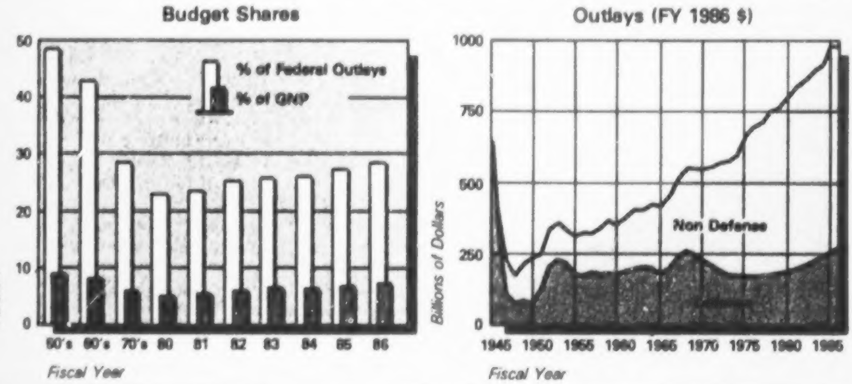
DoD Budget Trends
(In FY 1986 Dollars)



To be sure, total federal spending has grown significantly over the past 20 years. However, this growth was characterized by a dramatic shift from defense to nondefense spending. The defense share of federal outlays, which was more than 50 percent in FY 1955, will be only about 30 percent in FY 1986 (left figure, Chart II.A.5).

Chart II.A.5

DoD Budget and
Total Federal Outlays



Even with the continuing buildup, defense spending will account for less than 33 percent of the federal budget in FY 1990. The trend in nondefense spending has been exactly the opposite. It comprised less than 50 percent of total federal outlays in FY 1955, but will represent more than 70 percent of the budget in FY 1986. These trends are further highlighted in the right figure of Chart II.A.5. Nondefense federal payments adjusted for inflation have increased precipitously since 1970, reflecting a continuous rising trend in payments to individuals. Conversely, defense spending declined during most of the 1970s and has only experienced sustained growth since 1981. In fact, in FY 1986 it will be only slightly higher than the 1968 level.

It is also important to note that the recent growth in defense requirements has not taken a disproportionate share of the nation's wealth. The defense share of the nation's output of goods and services (GNP), based on the current estimates for defense outlays and economic growth, will average only slightly more than 7 percent over the next five years (left figure, Chart II.A.5). This is well below the peacetime 1950s and the early 1960s. Should the economy grow faster than currently forecasted, the defense share of GNP could be even less. Defense shares of the federal budget and economic aggregates are shown in Appendix A.

5. Defense Spending and Economic Recovery

It is apparent from available data on the current recovery that the nation's economy is accommodating the Administration's defense program and is also achieving sustained growth without creating employment problems, inflationary pressures, or supply shortages. The unemployment rate is declining steadily while employment levels are at all-time highs. Inflation has been more than halved since 1981 and continues at a moderate rate. Industrial capacity utilization continues to expand, and supply bottlenecks are rare and of short duration. These conditions apply to both defense-related as well as nondefense industries, and we expect this favorable trend to continue.

Studies, such as the exhaustive review done by the Department of Commerce on industrial capacity and the defense buildup, have shown that industry in general will easily continue to be able to accommodate our rebuilding program. There may be occasional spot shortages in certain industries, but they are not widespread and should not lead to significant labor or material shortages that could impede either our defense program or our overall economic growth. Therefore, we believe that our defense program complements the other aspects of the President's Economic Recovery Program and will continue to do so in the future.

But, even as we are well into our revitalization program, the prospect of continuing high deficits increases pressure to lower the level of resources available to meet our defense commitments. While no one contends there is any lessening of the military threat we face, some critics argue that large reductions in defense spending must be made, not because they are wrong or unnecessary, but simply to lower future federal deficits. The federal deficit situation is, of course, a very real concern, but it is quite wrong to conclude that the defense buildup is the primary cause of that situation. Other factors, both on the receipt and outlay side, have influenced the level of deficits far more than the recent upward trend in defense budgets. For example, the growth in nondefense spending during the past two decades has dwarfed that of defense spending.

Also, since we first announced our increased defense program in FY 1981, there have been significant reductions to planned increases in defense spending, primarily due to concerns about the deficit.

It is important to understand the economic effect of the budget because it requires a commitment of the nation's resources. Therefore, we will continue to evaluate the relationship of defense spending and the economy and develop our defense plans as economically and efficiently as possible. The defense budget is neither the primary tool of economic stabilization policy, nor a jobs program. What's more, it should not be used solely to stimulate industrial development. We must remember that defense spending does indeed produce both jobs and tax revenues. Cutting the defense budget does not automatically cut the deficit by the same amount.

The primary responsibility of a defense budget must be to provide our military forces with the resources necessary to counteract the threats to our security and to perform their peacetime role as an instrument of diplomacy and world stability. We cannot afford to prepare a defense budget that helps meet short-term, economic, non-defense goals, but does not meet our short- and long-term security goals. To do so would be ineffective economic policy and would be a very dangerous way to provide for our national defense.

6. Conclusion

The President's FY 1986 to FY 1990 defense program, shown in Table II.A.2, continues the commitment to meet our nation's security goals. This program, which totals $2.0 trillion, is based on a careful evaluation of the threats to our security and provides a balanced mix of defense resources to implement our strategy for meeting these threats.

Table II.A.2

FY 1986 Department of Defense Budget Long-Range Forecasts

($ in Billions)

Budget Authority	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990
Total, Current Dollars	313.7	354.0	401.6	438.8	477.7
Total, Constant (FY 1986) Dollars	313.7	339.4	369.5	388.0	406.7
Percent Change	5.9	8.2	8.8	5.0	4.8
Outlays					
Total, Current Dollars	277.5	312.3	348.6	382.3	418.3
Total, Constant (FY 1986) Dollars	277.5	299.0	319.3	336.1	353.8
Percent Change	8.4	7.7	6.8	5.3	5.3
Composite Pay/Price Assumptions for Outlays	100.0	104.5	109.2	113.7	118.2

Even though we have achieved much success over the last four years, congressional reductions to requested funding levels have lengthened the time necessary to complete our rebuilding program, and this has increased the cost.

However, with sustained congressional and public support, we can still complete our rebuilding program and achieve the goals we established in FY 1981. This will require a renewed commitment on the part of the Congress to address its share of the stewardship role for our national defense. If we continue to receive resources that are less than necessary, we will further delay our modernization program and increase the risk of returning to unacceptably low levels of military readiness. This five-year program precludes that from happening and is designed to meet both the short- and long-term requirements as efficiently and effectively as possible. So far as we can tell now, it is imperative that we follow this course so that we may continue the progress we have already made toward restoring American leadership and preserving peace with freedom. If events change and the Soviet threat significantly and verifiably diminishes, so can our defense spending plans.

B. MANAGEMENT REFORMS

1. Introduction: The Challenge of Management Reform

President Reagan took office four years ago with a promise to cut the fat out of government. He did not make an exception for the Department of Defense. While he was determined that defense would have a greater claim on the nation's resources than in the decade of neglect of the 1970s, it would not have a limitless claim. To fulfill the President's pledge to restore America's military strength, we were charged to get more defense from each defense dollar.

During the 1970s the United States accumulated serious shortfalls in weapons and equipment, and much of what we had was becoming increasingly obsolete compared to new Soviet hardware. Even when new systems were acquired, they took too long to develop, cost too much, and too often failed to meet our requirements. In order to rebuild our forces as quickly and cost-effectively as possible, and to ensure that the weapons we procured could perform when and where they might be needed, we undertook a comprehensive program of management reform.

This reform program faced several challenges. One was the sheer scale of defense acquisition. In FY 1984 alone we entered into contracts with thousands of firms, for a total of $146.2 billion. This does not include the hundreds of thousands of earlier, ongoing contracts involving hundreds of billions of dollars, which still must be monitored.

These earlier contracts, indeed, present another challenge. Many existing contracts were very bad contracts from the government's viewpoint. For example, contractors were permitted to retain proprietary data rights indefinitely, making it very difficult to encourage competition, and enabling contractors to charge sometimes unreasonable prices for vitally needed spare parts.

Likewise, many inherited programs were already over budget and behind schedule. The first Trident submarine, for example, was 22 months behind schedule when it arrived. We have been working to correct these problems. The last four Trident submarines, for example, were delivered to the Navy four to seven weeks early, and the ships now under construction are on or ahead of schedule. Some other troubled programs now back on track include the M1 tank engine, the Tomahawk cruise missile, and the Los Angeles-class submarine.

A final and even more basic challenge to our defense acquisition reform program is the continuing need to balance competing management goals.

Our weapons acquisition programs must respond to changes in our national security interests and the threats to those interests, as well as to innovations in technology, strategy, and tactics. For these reasons weapons acquisition must remain flexible; yet it often takes 15 years for a system to move from the drawing board to the field. During this time, program stability is the key to containing cost growth. Good management, then, requires balancing flexibility and stability.

As a nation with worldwide interests, we must be prepared to meet a broad spectrum of potential conflicts. Therefore, the acquisition process is crowded with programs, each of which places legitimate demands upon our limited resources. Too many programs, however, force managers to make difficult choices between competing priorities. Sometimes this results in decisions to cancel or stretch-out programs that, under better budgetary circumstances, should be allowed to continue undisturbed.

Reducing the time it takes to acquire a weapon system also involves a variety of managerial dilemmas. Developing several components of a system concurrently, for example, can shorten acquisition time significantly. However, it also heightens program risk and can add major costs. Entering production too early may lead to costly and time-consuming changes if tests reveal new problems. On the other hand, developing system components in strict sequence can delay by years the time it takes to deploy a new system and may render it obsolete before it is deployed.

Efforts to shorten acquisition time must also be balanced against the need for comprehensive planning. Our management reforms emphasize planning early to ensure that we provide for such critical factors as logistics support, competition, capital investment, test equipment funding, warranties, and the use of simplified specifications and standards. While these will save money, they may increase the time required for the early phase of program planning. Traditionally, the early phase of a program is most susceptible to stretch-out.

Other tradeoffs between short-term costs and long-term savings affect many of our management reforms. Multiyear procurement, economic production rates, improved support and readiness, and even competition generally require higher initial investments to achieve eventual savings. In FY 1986, for example, we are requesting additional resources for multiyear programs, with estimated long-term savings of $1.3 billion. These additional up-front costs, however, increase the demands on the current budget, already under greater pressure than the out-years.

These challenges have not discouraged us. We have pressed forward with our acquisition reform efforts, making great progress in a short period. We have also come to a clearer understanding of the nature and scope of today's most pressing acquisition problems. Our commitment to achieve even higher levels of efficiency and effectiveness through further reforms of the acquisition process and greater efforts to identify and eliminate waste, fraud, and abuse remain undiminished.

2. Reforming the Defense Acquisition Process

In March 1981, I ordered a sweeping review of the defense acquisition process. Our investigative team was asked to undertake a forthright analysis of DoD's management weaknesses, to present a plan to reduce costs and acquisition time, and to increase the stability and efficiency of defense acquisition. The result was the Defense Acquisition Improvement Program (DAIP).

The record shows that we have taken major strides toward achieving our management reform objectives during the past four years. The nonpartisan Congressional Budget Office has estimated that annual cost growth on selected major systems has been reduced from 14 percent in CY 1980 to only 1 percent by the end of FY 1983. Several important programs (e.g., aircraft carriers and the B-1B bomber) are now on or ahead of schedule. We have simplified and streamlined the acquisition process in accordance with sound management principles. We have increased competition, improved readiness levels, and met support requirements. Finally, despite continued problems with program instability, caused in no small part by budget cutbacks, we have introduced a number of measures, such as multiyear procurement, that will improve program stability.

a. Simplifying Acquisition Decisionmaking

Our FY 1981 defense acquisition review revealed that our planning and acquisition process had become overburdened with paperwork and excessive regulation, leaving senior defense managers with little time to focus on such major problems as cost control. In response we have simplified the acquisition process considerably.

By doubling the dollar thresholds that define a major program (which had been set in FY 1974 and remained unchanged despite almost 100 percent inflation) to $200 million in research and development and $1 billion in procurement, we have ensured that senior managers review only the highest priority programs. Programs that formerly met the threshold definition, such as the Tomahawk cruise missile and the Rattler antiarmor weapon, have been delegated back to their respective Services for regular management review.

We have also reduced to two the number of milestone decision reviews of major systems. What was once the first milestone has now been incorporated into an annual review of new program proposals conducted by a strengthened and expanded Defense Resources Board. There it can be examined in the context of our entire defense program and overall budget constraints. Unless major cost or schedule thresholds established at Milestone II have been breached, the Milestone III production decision is retained by the parent Service. This enables us to give closer scrutiny to major systems.

Special emphasis has also been placed on tailoring program specifications and standards to the minimum essential to meet objectives. Our goal is to avoid unnecessary costs and delays from specifications and standards that are not truly essential. Twelve pilot programs, including the Advanced Tactical Fighter, the LHX light rotorcraft, and the JVX Joint Services Advanced Vertical Lift Aircraft, have been selected for application of this tailoring initiative. Already we have achieved significant savings in applying this initiative to the Navy's new trainer program, the VTXTS.

b. The Defense Acquisition Improvement Program (DAIP)

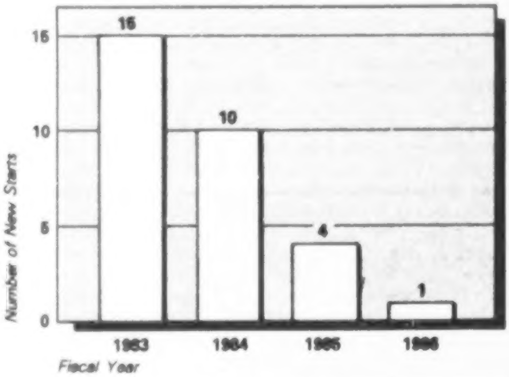
The DAIP was the product of our initial review of the defense acquisition process. In April 1981, the Deputy Secretary of Defense issued 32 management initiatives. A subsequent review of how these initiatives were being implemented led us to focus on six major areas: program stability, multiyear procurement, economic production rates, realistic budgeting, improved readiness and support, and greater competition.

(1) Program Stability

Ultimately, improving the affordability of defense programs depends on achieving greater program stability. Arbitrary changes to programs cost the taxpayer billions of additional dollars as programs are redesigned, stretched out, or interrupted to meet near-term budgetary demands. The Services have instituted important management improvements aimed at discouraging and eliminating arbitrary changes to programs. The Army and Air Force baseline management programs ensure that only essential changes are introduced into a program. The Secretaries of the Navy and Air Force personally review proposed changes to their programs. Certain high priority programs are subject to frequent Secretarial Program Reviews, where proposed changes must be approved by the Secretary or Deputy Secretary of Defense. As a result of these reviews, for example, we have rejected some expensive engineering modifications proposed for the B-1B bomber.

During the past three years, we have also improved overall affordability and contributed to greater stability by reducing the number of approved new programs from 15 in FY 1983 to only one new program in the FY 1986 budget. The Integrated Electronic Warfare System (INEWS) included in the FY 1986 budget is a high priority Joint Service program to develop a self-protection system for the Air Force's Advanced Tactical Fighter and for the Navy's Advanced Tactical Aircraft. Other high priority programs approved in recent years include the Navy's next generation attack submarine and the inner-zone antisubmarine warfare helicopter; the Army's Antitactical Missile (ATM) and Multiple-Launch Rocket System (MLRS); and the Air Force's Advanced Tactical Fighter (ATF) and space surveillance programs.

Chart II.B.1
DoD Approved New Starts



While these and other priority programs have been approved, the number of programs for which approval has been withheld has gone up during the past two years. Two of the programs proposed in FY 1985 were not approved. This year, four new program candidates were not approved. These decisions represent our best judgement about the appropriate balance between meeting essential security needs and satisfying budgetary constraints.

We have also sought to cancel and reduce lower priority programs. We continually review existing acquisition programs to identify any that give us marginal capabilities at high cost, duplicate other programs, or involve unacceptable development risks with the potential for major cost increases.

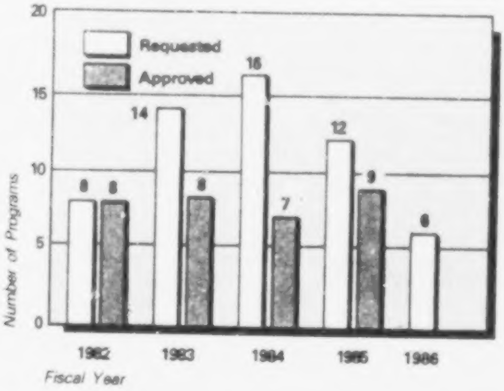
Unfortunately, the systematic efforts being made within DoD to improve program stability have often been offset by the impact of budgetary constraints and other actions taken by the Congress. For example, as a result of budget reductions, the FY 1985 amended budget contained 12 additional program stretch-outs that will raise the total costs of these programs. Indeed, almost every line item in our annual budget submission is adjusted on a regular basis by one of the several congressional committees that review the defense budget. Congressional understanding of the hidden costs of arbitrary program changes is required to achieve greater program stability and better cooperation between DoD and the Congress.

(2) Multiyear Procurement

Multiyear procurement can reduce long-term costs by enabling contractors to purchase materials in more economical lot buys. It also encourages program stability, another management goal. We have already saved over $4 billion from multiyear procurement, and we believe that, with continued congressional cooperation, the potential exists for far greater savings in this area.

In the FY 1985 budget we proposed 12 multiyear candidates for a savings of $1.1 billion. Of these, nine programs, for a savings of $1 billion, were approved. Overall, the Congress has approved 32 programs for multiyear contract starts since FY 1982, including two F-16 airframe contracts (savings: $256.8 million and $358.3 million, respectively), the MLRS (savings: $20[illegible].1 million), the KC-10 aircraft (savings: $658 million), and the B-1B bomber (savings: $1,188.2 million). This year's budget contains an additional six programs (the LHD amphibious assault ship, MK-46 torpedo, P-3C, M1 engine, M1 fire control system, and T-700 engine) for estimated savings of $1.3 billion over annual procurements of these systems. In the 1986 budget we propose 6 multiyear candidates with a savings of $1.3 billion.

Chart II.B.2
Multiyear Procurement



(3) Economic Production Rates

Initial progress through this initiative was very gratifying. In FY 1983 we achieved $2.3 billion in unit cost savings for 18 programs by producing them at rates that take advantage of economies of scale. For example, the AIM-9M air-to-air missile unit cost was reduced from $178,000 in FY 1981 to $83,000 when the procurement quantity was increased six-fold. Higher production rates also significantly reduced costs for the F-16 and F-14A aircraft.

However, since budget restrictions have reduced acquisition resources more than $100 billion below planned levels for FY 1983-87, we have been unable to achieve additional comparable economies. During the past two years we have added only $500 million in savings. Reducing unit costs through more efficient production requires full budgetary support. In 1986, our plans are to save $100 million by this method, if the Congress approves.

Another approach to reducing unit costs emphasizes the producibility of a design during the full-scale engineering development phase. Most of our early operational difficulties stem from failure to make an efficient transition from development to production. The unfortunate result has been higher-than-programmed unit production costs and operational support costs. We have two new DoD directives governing this transition from development to production, and a new DoD manual has been drafted that is aimed at assessing -- and reducing -- a program's production risk.

(4) Realistic Budgeting

One of the problems plaguing defense acquisition in recent years has been a tendency to understate the ultimate cost of a program. Sometimes a contractor offers a low bid to win a contract, confident that as costs rise so will payments from the Department of Defense. This is one reason we have increased the use of fixed-price contracts. Last year, 82 percent of all military procurement dollars were under fixed price contracts, up from 75 percent three years ago.

In times of budgetary restriction, moreover, the Services may choose to rely only on the most optimistic cost forecasts, underestimating the risks of cost growth in a program. For this reason, we are making greater use of independent cost estimates to achieve more accurate cost projections. During preparation of the FY 1986 budget, 27 programs were independently reviewed.

(5) Improved Readiness and Integrated Logistics Support

Reducing costs and acquisition time for major systems is a top management priority. But we must also be careful not to wait until a system is nearing deployment before we consider what kind of integrated logistics, manpower, and training support it will require -- and how much this support will add to the cost of the system. We must invest now to improve the reliability of our new systems and reduce their maintenance burden. All three Services have implemented programs to review support and readiness requirements in the early stages of development. Readiness objectives are now being assigned to all new programs as they enter the acquisition process, and these objectives are tracked at each milestone review, as well as during the program budget review. In addition, we have systematically reviewed the logistics support requirements and funding for 29 of our major systems over the past few years, and we have made the necessary budgetary adjustments to fulfill requirements.

(6) Competition

Probably no reform holds greater promise for reducing costs and improving quality than enhanced competition. Competition encourages risk-taking and innovation; at the same time, it offers an incentive for controlling costs and speeding production. Competition also helps preserve our defense industrial base and, therefore, our mobilization capacity.

We have made encouraging progress in expanding competition. For example, contracts for 19 of 22 ships were competitively awarded in FY 1984. Savings included $228 million on the Aegis cruiser and $108 million on the Los Angeles-class submarine. In fact, in FY 1984 we saved enough money through competition and tough bargaining to finance the entire cost of renovating the battleship USS MISSOURI -- despite earlier criticism that our estimates were too optimistic. Likewise, competition for a new fighter aircraft engine not only pushed costs below the initial estimates but also provided DoD with impressive warranties. The fighter engine contract also provides for future competition for replacement spare parts.

We are working to identify areas where competition has not yet been exploited. The Deputy Secretary has asked the Services to look at all major programs expected to enter full-scale development within the next two years to identify greater competition opportunities. The Services have also been asked to identify additional investment needed to encourage competition -- a recognition that competition, like so many management reforms, often requires greater up-front spending. For example, it is sometimes desirable to keep a contractor who has lost an initial development bid involved in a program that might later be produced competitively. However, unless the eventual production quantities are sufficiently large, this investment in competition may not be recouped in eventual savings.

In addition, the Services and Defense Agencies have appointed almost 600 competition advocates, individuals who have institutional interest in identifying potential areas where competition can be introduced. Among the changes in defense acquisition successfully proposed by competition advocates are: establishing a second production source or accelerating second-sourcing for the Phoenix and Rolling Airframe Missile (RAM) programs; opening the engineering development contract for a major avionics upgrade to the P-3 aircraft to competition (the first time competition has ever been applied to the P-3 program); and developing a second production source for the MARK 21 reentry vehicle for the Peacekeeper program.

c. Spare Parts Initiatives

Competition is also one of the keys to ending spare parts overpricing, another top reform priority of this Administration.

Overpricing of spare parts is not a new problem; studies as far back as 1961 indicated that this was an area in which defense management was ineffective. These problems were exacerbated during years when replenishment of spare parts was a dangerously low priority. The increasing age of our systems drove up the cost of spare parts, as did the increasing technological sophistication of our new programs. Meanwhile, thousands of suppliers dropped out of the defense marketplace -- the number of aerospace suppliers alone dropped from 6,000 in FY 1967 to just over 3,000 in FY 1980. This reduced price competition and, in some cases, required that parts for aging equipment be redesigned and completely rebuilt. Above all, the spare parts purchasing system was fraught with such inefficiencies as small lot buys, inequitable overhead costs, and over-engineering of parts.

For these reasons, the newly appointed Assistant for Review and Oversight decided to undertake a major exploratory audit of aircraft engine spare parts pricing. The problems revealed by this audit led to a sweeping, Department-wide audit of spare parts pricing involving over 400 auditors and consuming 18,000 auditor days. Although DoD has received very little credit for uncovering these problems, our audits and investigations gave us the information we needed to institute a full-scale reform of spare parts acquisition practices.

In July 1983, I issued a ten point program for ending spare parts abuses -- a program that included incentives for employees who discover cost savings and stern disciplinary action against those who allow abuses to continue; an aggressive effort to seek voluntary refunds where mistakes were made and to refuse unjustified price increases; additional audits and investigations; debarring of contractors who refuse to meet contracting standards; a strong commitment to the competition advocate program; and greater attention to spares problems. Above all, the program emphasized fundamental changes in acquisition procedures to reform the entire system of spare parts procurement.

Chart II.B.3
Spare Parts Story

You heard about the	But did you hear that
$400 Claw Hammer	— DoD Identified the Overcharge and Obtained a Refund from the Contractor.
$110 Diode	— DoD Identified the Overcharge and Obtained a Refund from the Contractor.
$9,000 Hexagonal Wrench	— DoD Identified the Overcharge and Refused to Pay.
$1,100 Plastic Stool Cap	— DoD Identified the Overcharge, Obtained a Refund, and Gave an $1,100 Award to the Air Force Sergeant Who Challenged the Price.

Our efforts are paying off. We have received over $2.1 million in refunds from over 250 contractors and are seeking more. Three hundred and seventy DoD personnel have received a total of $200,000 in awards for identifying over-pricing. Each Service has instituted a new spare parts reform plan. The Army has increased spare parts competition from 45 percent in FY 1981 to more than 55 percent in

FY 1984. The Air Force Logistics Command saved more than $60 million through spare parts competition in FY 1984. The Navy's program to find alternative spare parts suppliers saved $53 million in FY 1984, and two-thirds of the items reviewed for possible competition are now being purchased competitively.

Some of the steps we are taking to reform spare parts contracts and contracting procedures include:

-- Assigning additional personnel -- 3,500 in FY 1984 -- to implement our spare parts reform initiatives;

-- Requiring contractors to identify the subcontractors from whom they purchase spare parts. This enables us, in many cases, to break out spare parts -- that is, to purchase directly from the subcontractor at a lower rate;

-- Requiring contractors supplying items that are also sold commercially to certify to DoD that their prices are as low or lower than those charged to their "most favored customer;"

-- Performing intensive reviews of parts with an annual buy requirement of $10,000 or more, to see if we can identify parts that can be broken out for competition; and, in some cases, using reverse engineering techniques to develop competitive data packages;

-- Requiring contracting officer certification for the purchase of any spare part with a price increase of more than 25 percent in the last 12 months;

-- Buying replenishment spare parts in conjunction with the initial production of a system -- a reform that saved $188 million last year in its initial application;

-- Challenging contractor claims of proprietary rights to data that prevent competition for spare parts;

-- Promoting the use of standard parts in the development and production of a weapon system, allowing us to make more cost-effective quantity buys;

-- Undertaking value engineering analyses to determine which spare parts are "over-engineered" and could be produced more simply and inexpensively; and

-- Establishing a new Deputy Assistant Secretary of Defense position to oversee spares management within the entire Department.

These spare parts initiatives, along with our other major acquisition reforms, are helping us recover our long neglected military strength at a lower cost and with greater efficiency. We have made major contributions to improving the overall affordability of defense programs; we have simplified the acquisition process, and we have increased management accountability at all levels. We will always face difficult choices between reducing costs and reducing acquisition time, between promoting stability and promoting flexibility, and between undertaking promising development risks and undertaking more thorough initial planning. Tradeoffs are inevitable, but, having established a firm management foundation through our acquisition reform programs, we are confident in the ability of the acquisition process to meet our security requirements while achieving the efficiencies necessary to keep our economy strong.

3. Identifying and Curbing Waste, Fraud, and Abuse

During the past four years, we have witnessed dramatic improvements in our ability to detect and curb waste, fraud, and abuse. DoD improvements reflect the greater resources (2,000 additional auditors and investigators) and higher level attention now being given to these activities.

a. Office of the Inspector General

(1) Audits

In April 1981, I established the position of Assistant to the Secretary of Defense for Review and Oversight -- now the Office of the Inspector General -- to ensure better coordination of DoD's audits and investigations. Since then, over 68,000 internal audits have been completed with a potential savings of over $7.9 billion.

Chart II.B.4

Inspector General Efforts to Curb Waste, Fraud, and Abuse in FY 1984

• Audits of Internal Management of Defense Operations and Programs	– Reports Issued	18,532
	– Potential Savings	$2,714M
• Investigative Cases	– Cases Closed	15,837
	– Cases Referred for Prosecution or Administrative Action	5,546
	– Convictions	548
	– Fines, Penalties, Restitutions, and Recoveries Collected from Referrals to	
	Justice Department	$18,031M
	Military Departments	$11,151M
• DCAA Audits	– Reports Issued	61,081
	– Net Savings from Reports Closed	$7,400M
• Army Corps of Engineers Contract Audit	– Reports Issued	416
	– Net Savings from Reports Closed	$20.1M
• DoD Inspection Organizations	– Reports	10,102
• Follow-up Actions Completed	– Audit Recommendations	63,351
	– Estimated Savings	$1,900M
• Defense Hotline	– Calls and Letters Received	7,820

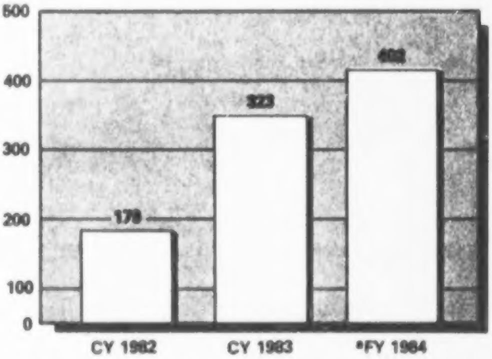
A vital element in this success has been aggressive audit follow-up -- long the Achilles' heel of our audit program. Thus far, 156,410 corrective actions have been completed on 50,939 DoD internal audit reports, resulting in savings of $3.5 billion over the past three years. For the same period, 2,350 corrective actions on 1,077 General Accounting Office (GAO) reports have been taken, resulting in monetary benefits of $4.6 billion. An additional 3,782 DoD and GAO reports are being tracked with potential savings of $3.2 billion. The GAO has praised DoD's increased responsiveness -- and DoD managers now know that accepted audit recommendations must be implemented.

(2) Investigations

A three-pronged campaign is under way to protect the Department's resources from unscrupulous individuals and corporations. The major elements of the campaign are: increased resources to combat criminal activity, including a new unit specializing in white collar crime; improved cooperation with the Department of Justice to increase the number of prosecutions -- a special DoD/Justice Department Procurement Fraud Unit has been established; and a new program to help DoD employees prevent and detect criminal activities -- over 10,000 personnel have participated in the program to date.

During the past year, we placed increased emphasis on procurement fraud involving major DoD contractors and providers of medical services. For example, investigation of one corporation revealed mischarging of labor hours from one contract to another. As a result, the corporation paid $30,000 in fines, $650,000 in damages, and was barred from recovering $300,000 in legal and defense fees. Another investigation revealed that a contractor had falsely certified required testing results of certain microchips purchased by government agencies. A plea agreement was made in which the corporation agreed to pay $247,000 in criminal fines and reimburse $105,000 for the cost of prosecution, plus $1.4 million in damages and civil penalties.

Chart II.B.5
Suspensions and Debarments



[a] Adjustments Made to Change Reporting from CY to FY.

The Department is now conducting a vigorous campaign to suspend or debar individuals or corporations who abuse the procurement process. The Department has made use of this powerful deterrent tool over 1,000 times since FY 1980, 402 times in FY 1984 alone -- an increase of 25 percent over the previous year.

During the past three years, the Department's criminal investigative organizations have opened nearly 49,000 cases. About 20,000 of these cases have been referred for prosecution or administrative action, and over 1,500 convictions have been obtained. More importantly, the trend is positive -- convictions increased 70 percent in FY 1983 over the previous year.

To help our employees identify procurement fraud, on June 1, 1984, DoD published Indicators of Fraud in Department of Defense Procurement. This publication identifies circumstances in which fraud is likely to occur, shows how to detect fraud that has already occurred, and outlines steps to take when fraud is uncovered. More than 45,000 copies of this publication have been distributed. In addition, more than 400 of our criminal investigators and auditors and more than 2,000 procurement personnel have been given procurement fraud detection training.

(3) Defense Hotline

In June 1981, we established a DoD Hotline to encourage reports of waste, fraud, and abuse in defense programs. Since then we have received over 23,000 calls or letters, of which more than 7,500 merited in-depth inquiry. Since May 1982, we have documented $3.5 million in savings from Hotline suggestions. Following are some examples of important cases handled by the Hotline during the past three years:

-- In a case developed from a Hotline tip, two employees of a DoD contractor pleaded guilty to shipping falsely marked and inferior quality materials and presenting fraudulent invoices. The materials were used in armor plating for the battleship USS NEW JERSEY and the space shuttle program. The employees were sentenced to ten years in prison and five years probation.

-- When a Hotline complaint reported that asphalt tile floors were being replaced with wood parquet in five senior officers' quarters, action was taken to cancel the excessive work. A direct savings of $10,680 was realized and indirect costs of $17,750 were avoided.

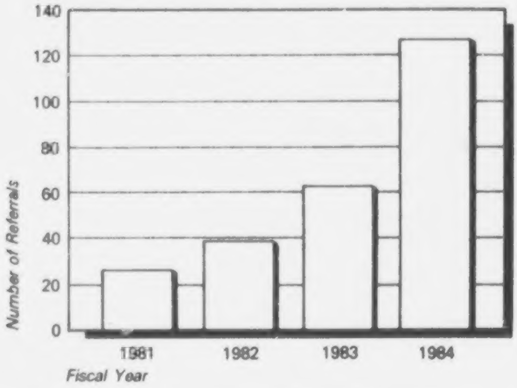
-- Two Hotline-initiated inquiries showed that the Navy Ships Parts Control Center at Mechanicsburg, Pennsylvania, was being overcharged for various spare parts. In the first case, the contractor, while denying intentional over-pricing, agreed to refund $3,271 to the government. In the second instance, a one-time savings of $36,544 was realized. Future purchases will cost about $9,000 less per unit.

-- A Hotline complaint focused attention on a sixfold increase in the price of a navigational light. After a review, the contractor refunded more than $30,000 to the government and reduced other prices awarded under its blanket purchase agreement. Eventually the blanket purchase agreement was terminated and contract surveillance increased.

b. Defense Contract Audit Agency (DCAA)

DoD's worldwide contract audit activities are conducted by the Defense Contract Audit Agency (DCAA) -- a separate agency within DoD reporting to the Assistant Secretary of Defense (Comptroller). In FY 1984, the DCAA issued 61,081 audit reports, resulting in net savings of $7.4 billion. Likewise, in FY 1981-84, the DCAA reported 255 suspected contractor fraud cases. As the chart indicates, the number of cases per year has increased more than four times from FY 1981 to FY 1984. The percentage of audit exceptions sustained increased from 55 percent in FY 1981 to 65 percent in FY 1984.

Chart II.B.6
Defense Contract Audit Agency
Number of Referrals for Investigation



The following efforts to improve efficiency and reduce costs will be emphasized this year:

- -- Conducting special systems and operations reviews of major weapon systems contractors and subcontractors;
- -- Using special computer software programs to provide direct auditor access to contractors' computerized accounting records;
- -- Providing new guidelines to help auditors recognize fraudulent pricing practices;
- -- Emphasizing the evaluation and review of contractors' compensation costs and salary escalation costs; and
- -- Installing new agency-wide information systems that exploit technological advances in automated equipment and software.

Effective management of DoD's worldwide contract audit operations has achieved significant reductions in procurement spending as depicted in Table II.B.1.

Table II.B.1
DoD Reduction in Procurement Spending — 12-Month Period Ending June 30
(Dollars in Millions)

	1982	1983	1984
Review of Contract Proposals	$7,194.4	$8,642.4	$9,655.0
Audit of Incurred Contract Cost	670.1	650.2	659.6
Cost Accounting Standard Issues	19.3	32.2	19.9
Defective Pricing Adjustments	22.8	55.5	52.3
Total Reductions[a]	$7,906.6	$9,380.3	$10,386.8

[a] Reductions in contract prices are due to contract audit effort.

Examples of significant individual contract audit findings include:

-- Audit of a $480 million fixed-price proposal resulted in a $58 million savings to the government. A major portion of the savings was attributable to historical differences between vendor quotes and actual purchase orders.

-- Audit of a change order proposal totaling $68.2 million resulted in government net savings of $25.5 million. Savings came primarily from identified duplications of direct and indirect costs.

-- Examination of a $19 million fixed-price proposal for spare parts resulted in net savings of approximately $3.5 million. The audit disclosed that the contractor's proposed material cost was significantly overstated due to application of several inappropriate or incorrectly computed add-on factors.

4. Other Management Initiatives

a. Internal Management Control Program

Consistent with the Federal Managers' Financial Integrity Act of 1982, DoD has established the Defense Internal Management Control Program. The purpose of this initiative is to identify and correct management weaknesses before they can cause problems and to strengthen management at every level, in line with our decentralized management policy.

Under the Internal Management Control Program, managers throughout DoD are required to make a formal assessment of their department's vulnerability to, and safeguards against, waste, fraud, and abuse, and then to submit plans for strengthening internal controls. Identifying and solving internal management problems will now be part of every manager's performance review.

The Internal Management Control Program has top level support throughout DoD. It is closely monitored by the Defense Council for Integrity and Management Improvement, which is chaired by the Deputy Secretary of Defense. During FY 1984 alone, 52,000 managers were involved in assessing their organizations. Based on these assessments, 29,710 intensive reviews of controls were conducted. Major areas of material weakness that were identified include management of foreign military sales; property management; cash and debt management; and security, procurement, and accounting system certification. In FY 1985 we will be working to correct these weaknesses.

b. Reform '88

Reform '88 is a long-range Presidential initiative to improve administrative management within the Federal Government. Many of the reforms already discussed in this section, such as improved internal management controls, increased Inspector General audit recoveries, and procurement reforms, are consistent with the Reform '88 initiative.

Similarly, we are already seeing results from our efforts to reduce administrative systems, improve the collection of debts owed to the government, and manage revenues and disbursements.

The Deputy Secretary of Defense has established an Administrative Systems Exchange Project to reduce the number of administrative systems and to increase their commonality. For example, the Defense Logistics Agency is currently operating a consolidated personnel/payroll system. Similarly, the Services have initiatives aimed at consolidating numerous pay and personnel systems into one personnel system as well as a single payroll system per Service.

In the area of debt collection, we are developing guidance for employing administrative and salary offsets, increasing the use of credit bureaus and collection agencies, and helping other federal agencies in collecting debts. For example, we are helping the Department of Education collect student loans from DoD employees.

To improve cash management, DoD has made procedural changes and improvements (e.g., Treasury Financial Communications System, Direct Deposit/Electronic Fund Transfer, lockboxes, and automated teller machines) that accounted for about $31.7 million in annual savings during FY 1984.

5. The Grace Commission

When the President's Private Sector Survey on Cost Control was established in June 1982, we viewed it as an opportunity for identifying additional means of enhancing management efficiency. Following the release of the Commission's reports, we embarked on a comprehensive review of all defense-related recommendations.

As a result of this review, the Department is now moving aggressively to implement Grace Commission recommendations. For example, we have already made improvements in stock positioning, freight bill audits, airframe maintenance, and contract travel.

To expedite implementation of other Grace Commission recommendations, we have issued guidance for improving basic acquisition management activities such as acquisition planning, stability, and prioritization; multiyear procurement; and economic production rates. We have issued additional guidance in other areas such as wholesale depot-level distribution functions, petroleum product procurement, and improved inventory management.

The savings associated with these improvements have been incorporated into our budget. DoD will continue its efforts to ensure that all prudent recommendations are implemented.

6. Conclusion

During the past four years, we have identified management problems within DoD and initiated reforms to eliminate these problems. Of course our job is far from done. We will continue to uncover problems, even as we continue to evaluate and, when necessary, revise our management reforms. A comprehensive program to improve acquisition management, to end spare parts pricing abuses, and to curb waste, fraud, and abuse is in place -- and, it is working.

Our challenge in the coming years will not be just to solve problems, but to prevent them. As we develop new weapons systems, we must plan at the outset for competition, for efficient production, and for adequate support and readiness. We must write tough contracts and enforce them strictly. And we must examine our operations to see not just where waste or fraud is occurring, but where it could occur -- and then see to it that the taxpayers' dollars are not squandered.

C. READINESS AND SUSTAINABILITY

1. Introduction

Over the past four years, we have greatly improved the combat capabilities of both our active and reserve conventional forces -- an improvement essential to our deterrent and warfighting strategies. Moreover, we have achieved this increased capability in a balanced fashion, with improvements in each of the elements of capability: readiness, sustainability, modernization, and force structure. While our modernization programs and force structure initiatives may be the most visible of our conventional forces' capability improvement efforts, we have not neglected the equally important readiness and sustainability elements, as some have contended. We recognize that our forces, regardless of the technical sophistication of their equipment, offer only illusory deterrent value if perceived as unable to respond quickly and effectively, or unable to sustain themselves in combat. We have therefore accorded readiness and sustainability high priority in our defense resource allocations for the past four years.

Overall, readiness and sustainability funding has increased from $50.3 billion in FY 1981 to $80.4 billion in FY 1986, an increase of 50 percent in real terms. Despite our increased investment in modernization during this period, readiness and sustainability have not been sacrificed, but received essentially a constant share of total defense funding.

These real increases for readiness and sustainability funding have allowed us not only to realize significant progress in correcting the deficiencies that existed in these areas four years ago, but to achieve improved levels of readiness and sustainability with a larger, considerably more modern force. The result is a conventional force significantly more effective -- both as a deterrent and in warfighting capability. Some have used highly technical indices of specific aspects of readiness to charge we have gained nothing by our improvements. The real life practical answer is best given by the Chairman of the Joint Chiefs of Staff who summarized our progress:

> **By every common sense measure we are far more ready now than in 1980 .... we have better people, they're armed with more and better equipment, their training has improved, and they have better support behind them. And that makes for a readier force.**

We will continue this progress with balanced improvements in each of the elements of our conventional forces' combat capability.

This chapter discusses several specific areas of our materiel and unit training readiness and sustainability improvements, assesses our current posture, and identifies expectations for the future. Our manpower, installations, and mobilization programs which contribute to readiness and sustainability are discussed in separate chapters.

2. Readiness

Our readiness objective is to provide and train personnel, and equip our forces to a level that will enable them to achieve full combat potential within tasked response times should a conflict arise. We evaluate our achieved readiness in four basic areas:

-- Equipment Fill: The amount of equipment (aircraft, tanks, trucks, etc.) we field relative to our combat requirement;

-- Equipment Condition: The operability of this fielded equipment;

-- Personnel Fill: The availability of people, with the right skills and training for our force structure, and

-- Unit Training: How well our individual units are collectively trained.

These readiness components require various resources that have different procurement lead-times as depicted in Table II.C.1.

It is important to note that relatively few readiness areas can be improved quickly. Some important readiness areas have lead-times as long as our modernization programs. This "resources-to-readiness" lag is much greater than the strategic warning we are likely to get. For this reason, we continue to give readiness a high funding priority, in that we will not have time to "get ready" once hostilities commence. Our achieved readiness in peacetime will largely determine the effectiveness of our conventional forces in the first days of combat.

Table II.C.1

Resource to Readiness Lag-Time

Component	Lead-Time (Years)
Equipment Fill (PA)	2 - 3
Equipment Availability	
— Depot Maintenance (O&M)	1
— Repair Parts (PA, SF)	1 - 3
Unit Training	
— Flying/Steaming Hours and Battalion Training Days (O&M)	1
— Simulators (PA)	2 - 3
Personnel	
— Recruiting and Retention (O&M, MP)	1

PA - Procurement Accounts Investments
O&M - Operations and Maintenance Account Expense
SF - Stock Funds Investment
MP - Military Pay

a. Equipment Fill

The Army's readiness continues to be affected by shortages of equipment. After the Vietnam War, the Army needed to modernize its equipment to counter the most effective equipment being deployed by the Warsaw Pact. As this essential modernization program grew, so did its costs. As a result, we have not been able to modernize as fully as we wished, to procure enough equipment to replace that wearing out, or to fill all existing shortages. Consequently, with the exception of the most important combat equipment, equipment fill still needs additional funding.

This problem has existed for some time, but we have lacked the data necessary to assess the shortages of specific ancillary equipment. We have initiated an effort to compile and assess these shortages in all combat and support units. The results of this study will allow us to target the necessary resources to this long-standing problem area.

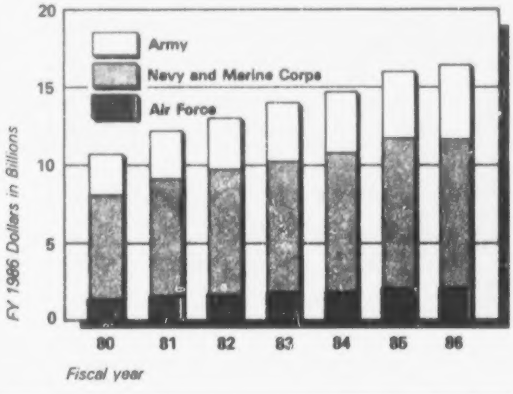
b. Equipment Condition

The operational availability of our fielded equipment is a function of our maintenance programs and the availability of repair parts and other components to keep this equipment in combat-ready condition. We have made considerable progress in both areas.

(1) Depot Maintenance

Overhaul of ships, aircraft, tanks, missiles, and other major weapon systems at the depot level is central to the equipment maintenance strategy of each Service. We have significantly increased funding for depot level maintenance in each of the Services since FY 1981, as Chart II.C.1 illustrates.

Chart II.C.1
Depot Maintenance Funding
(FY 1980 - 1986)

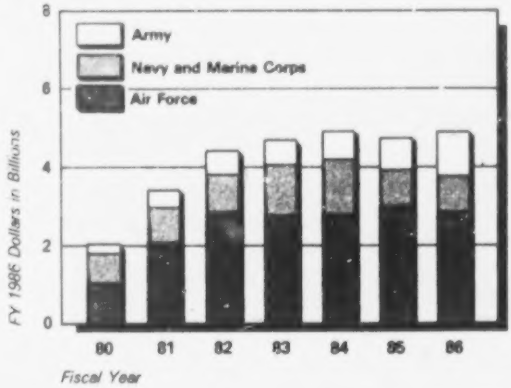


The budget reflects continued emphasis on improving our depot maintenance posture by providing adequate funding in support of depot maintenance requirements. We will continue to emphasize depot maintenance funding because of its central contribution to equipment availability and readiness.

(2) Spares and Repair Parts

The effectiveness of both depot and organizational maintenance programs is dependent on the availability of spares and repair parts. We require both replenishment spares to replace those consumed during maintenance and initial spares to support new weapons systems entering the inventory. While replenishment spares requirements are driven largely by peacetime activity levels (aircraft flying hours, for example), initial spares requirements are primarily a function of our modernization programs.

Chart II.C.2
Peacetime Replenishment
Spares Funding
(FY 1980 - 1986)



As shown in Chart II.C.2, we have substantially increased our annual investment in replenishment spares to support our peacetime activity levels and improve the operational availability of our ships, aircraft, and combat vehicles. In addition, we have fully funded the requirement for initial spares each year to keep support abreast of new equipment deliveries and to ensure that our newest and most effective equipment is fully supported. We will invest over $4 billion in initial repair parts purchased through the Defense Stock Funds between FY 1983 and FY 1986. As a result, the new weapons systems procured through our modernization programs are better supported at delivery than were their predecessors.

(3) Equipment Readiness Results

Our increased attention to equipment maintenance and repair parts support is largely responsible for the measurable improvement in equipment readiness. Our primary measures of force-wide equipment availability include mission capable (MC) and fully mission capable (FMC) rates for aircraft and ground forces equipment, and command operationally ready (COR) rates for ships. These measures each describe the percent of weapons systems in the inventory that are

Chart II.C.3
Aircraft Mission Capable Rates
(FY 1980 - 1984)

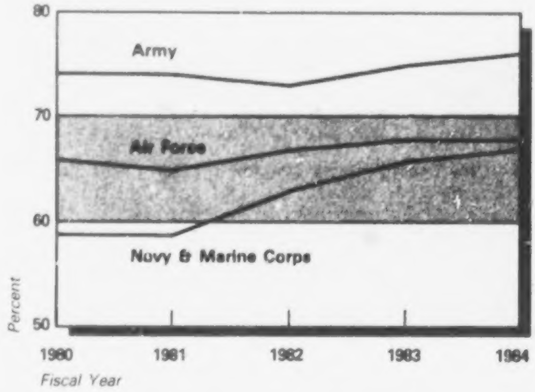
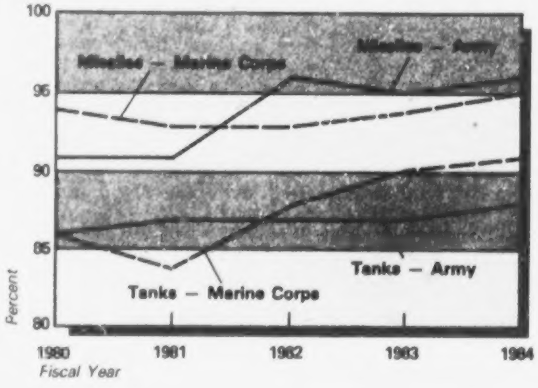


Chart II.C.4
Selected Ground Forces Equipment
FMC Rates
(FY 1980 - 1984)



capable of performing at least one primary mission (MC) or all designed missions (FMC). We have experienced positive trends in aircraft and ground forces equipment availability as illustrated in Charts II.C.3 and II.C.4. The COR rate for ships, the percent rated fully or substantially combat-ready, has increased from 54 to 78 percent between FY 1980 and FY 1984.

We expect these trends to continue as our expanded investments in spares and repair parts are fully delivered. The FY 1986 Force Readiness Report provides detailed historical and projected MC, FMC, and COR rates by specific weapon system and Service.

c. Training Readiness

In addition to possessing adequate inventories of well-maintained equipment, our forces must be systematically trained and exercised as teams in order to develop the collective skills required for success in wartime missions. The amount and quality of collective unit training define the training component of force readiness.

The ability to conduct good collective unit training is heavily dependent on personnel and materiel readiness. The favorable trends described in the Manpower chapter of this report -- high-quality enlistees, good retention of noncommissioned officers, improvements in personnel stability -- allow units to concentrate on perfecting collective skills. Improved availability of operational equipment also increases the opportunity for sound collective unit training.

And we have also improved training readiness by increasing the value of training time -- for example, the development and use of more effective training ranges. Another important way in which training is being made significantly more effective is through the increased development, procurement, and use of simulators and other training devices. These devices complement and supplement training on the primary equipment and raise proficiency beyond that which could be achieved in the past using primary equipment alone.

d. Unit Readiness Measures

The measures of equipment availability and unit training discussed above are examples of force-level readiness indicators. We also measure some components of readiness on a unit basis.

Our basic system for reporting readiness at the unit level is the Unit Status Reporting System (UNITREP). UNITREP is designed, managed, and controlled by the Organization of the Joint Chiefs of Staff (OJCS). The Services collect and report unit status statistics to OJCS in accordance with specific Service reporting rules, developed within broad OJCS guidelines.

The UNITREP system rates units as C-1 (fully ready), C-2 (substantially ready), C-3 (marginally ready), C-4 (not ready), or C-5 (not ready for a preplanned reason, such as a ship in overhaul). Furthermore, under UNITREP, units are rated in four resource areas -- two related to materiel and two related to people. They are:

-- Equipment Status: Quantities of equipment and supplies on-hand relative to that required and authorized for the wartime mission;

-- Equipment Readiness: The average condition of the equipment on-hand;

-- Personnel: People on-hand relative to wartime requirements in terms of numbers, critical skills and grades; and

-- Training: Whether the unit is trained to perform its wartime missions.

UNITREP assigns a C-rating to each unit in each of these four resource areas and an overall C-rating that is the lowest of the area ratings unless modified by the commander's judgement.

UNITREP data, although classified, support many of the trends mentioned in this section. For example, equipment status trends are up for Navy and Air Force aircraft; training trends are also improving. A more complete discussion of UNITREP, as well as detailed UNITREP data, is contained in the DoD report, Improvements in U.S. Warfighting Capability FY 1980-84, and its classified annex. This report documents the specific improvements that have been made in each of the elements of our combat capability, and substantiates readiness gains measurable at both the force and unit level.

3. Sustainability

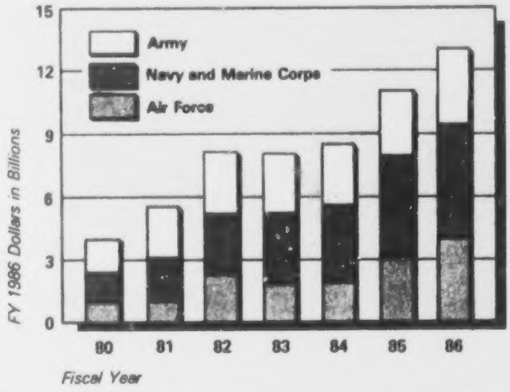
Our sustainability objective is to ensure logistical support to our conventional forces from initiation to successful termination of any hostility. Our requirements for combat-essential materiel during a conflict will be several times greater than our normal peacetime consumption. For this reason, we are striving to build up war reserve stocks sufficient to support the combat forces until our industrial base can mobilize to meet our wartime requirements. Unfortunately, long production lead-times and the large quantities required make building stockpiles of war reserve munitions and repair parts a slow, expensive process.

Sustainability, like readiness, cannot be purchased quickly. Although the sustainability resource areas were allocated some of the largest real funding increases over the last four years, less than half of this investment has been produced and delivered. We have recognized and sought accelerated sustainability funding as a high priority and we need congressional support for this.

a. Munitions

We have continued the progress reported last year toward redressing critical deficiencies in our munitions sustainability. Funding for the last seven budget years is shown in Chart II.C.5. This graph demonstrates our resolve to build our munitions inventories to the point that we would never be forced to escalate to theater nuclear weapons because our conventional sustainability had been exhausted. Even with these increases, however, achieving our modest mid-term objective is slow. The long production lead-time for munitions, about two years, means that the increased funding in FY 1982 is only now beginning to be translated into increased combat staying power. This is one of the best arguments for avoiding the drastic budgetary erosion we experienced in the 1970s.

Chart II.C.5
Munitions-Sustainability Funding
(FY 1980 - 86)



Procurement of modern munitions supports our sustainability and modernization programs. When we buy Maverick missiles, for example, we not only arm a number of sorties, we also increase by an order of magnitude the potential effectiveness of those sorties. Similarly, the Copperhead offers an increase in capability that cannot be matched by any number of the older artillery rounds.

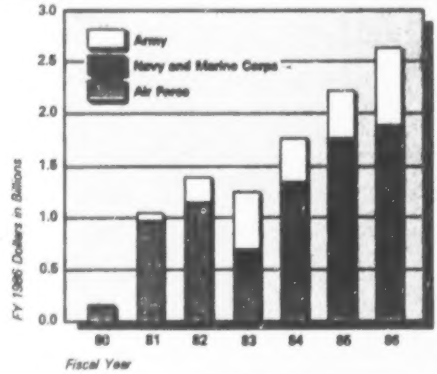
The exact level of our sustainability -- how many days or weeks that we could fight -- is highly scenario-dependent, and our estimates for specific scenarios are classified. In general terms, we have not yet attained the levels necessary to constitute a prudent risk deterrent. Sustaining a conventional war is very expensive. It will take many years of increased budgets to build our stockpiles to the required level. However, we think it is worth the expense to provide the conventional sustainability necessary to reduce the risk of nuclear escalation.

b. Spares and Repair Parts

Our increased consumption of repair parts to keep aircraft, ships, and other combat equipment fully operational at the much higher level at which they will be operated during conflict is the basis for our war reserve requirement for these items. We have concentrated on filling the necessary stockpiles of prepositioned repair parts -- those that would be required first. To accomplish this, we have increased our funding for war reserve spares and repair parts in both the procurement accounts and the stock funds (see Chart II.C.6)

Because of the production lead-times for these items, more than half of our investment over the last four years has yet to be delivered. Today, we have only about one-third of our war reserve prepositioning objective on hand, but we expect that the increased sustainability funding already approved, as well as that planned, will allow us to achieve more than 80 percent of that objective by the end of this decade.

Chart II.C.6
War Reserve Spares and
Repair Parts Funding
(FY 1980 - 86)



4. Conclusion

Without question, we have made substantial improvements in both the readiness and sustainability posture of our conventional forces over the past four years. With regard to readiness, we are confident that we have achieved the level necessary to deter aggression today and, if necessary, to react effectively. This improvement is substantiated by readiness indicators. Our equipment is more operationally available, we have more and better people to operate it, and they are better trained, individually and collectively. But, we need more modernization and more expenditures for sustainability.

So we can, and should, do better. We will continue to improve our equipment availability by eliminating depot maintenance backlogs for both end-items and components and by fully funding requirements for both initial and replenishment spares. In addition, we plan to continue funding for collective unit training at the current level for the Navy and Air Force, and at an increased level for the Army's flying hour program.

We have not progressed as quickly in improving the sustainability of our conventional forces. This is due in part to the longer lead-times required to procure modern munitions and repair parts, and in part to the large sustainability deficiencies that existed four years ago. Our sustainability requirements have also increased both to support our modernized weapons systems and to meet the larger threat we must deter and, if necessary, defeat. We will not reach a point of confidence in our sustainability posture until late in this decade even with the large real increases in funding we will propose. But as a result of these investments, each year our conventional sustainability posture improves and reduces the probability of having to use nuclear alternatives should deterrence fail. This is not an investment area in which we can afford to be frugal.

D. MANPOWER

1. Introduction

Almost every aspect of our manpower program has experienced noteworthy improvements in the last four years. Whereas in FY 1980 there was genuine concern that the all-volunteer concept might not succeed, in FY 1984 all Services met their recruiting goals. Retention was up, the quality of our new recruits exceeded that of the civilian youth population, and our Selected Reserve Forces increased their strength by 22 percent to the highest level in history. We remain committed to protecting our people programs, safeguarding equality of opportunity for all servicemembers, and ensuring that our manpower investment continues to pay dividends in improved readiness.

This chapter discusses our military and civilian manpower programs. More detailed information on these programs is provided in the Defense Manpower Requirement Report and the Military Manpower Training Report.

2. The Manpower Program

a. Active Component Military Manpower

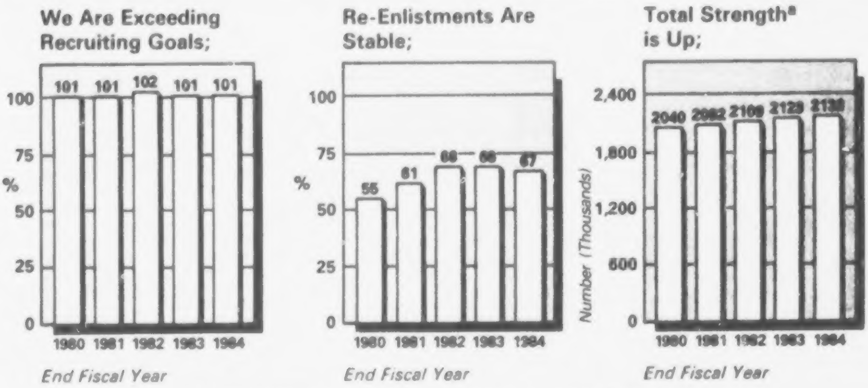
This Administration, with the support of the Congress, has built a strong, quality force that not only provides for the immediate defense of the nation, but offers the soundest foundation we have ever had upon which to build to meet our future defense needs.

The growth in capability of our Active Component has permitted development of a credible, formidable military force that can meet its commitment of supporting our security program.

The record high quality of our new recruits gives us a solid foundation from which we can staff our force and draw our future leaders.

Chart II.D.1

Improvements in Military Manpower



[a] Includes Navy, Training and Administration of Reserves (TARs) that are counted as Selected Reservists.

Existing supervisory and leadership shortfalls are gradually being eliminated, providing us with a more appropriately graded force possessing the necessary skills and experience to win on today's battlefield.

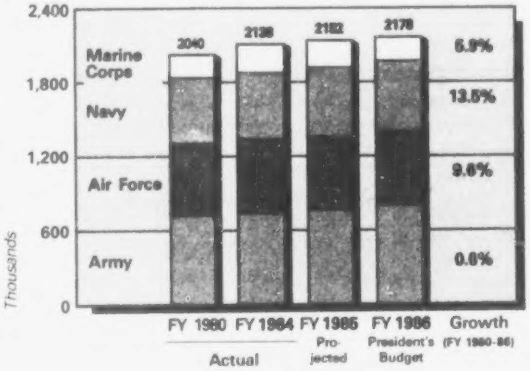
Our success in quality of life programs is reflected in the improved morale of our force and the decline in disciplinary actions taken during the past year. We now have a force that is prepared and able to support our worldwide commitments.

We will examine the four aggregate indicators of personnel readiness: end strength, experience, skills, and stability. These indicators clearly convey the greater capability of today's military personnel. We now must focus on sustaining our manpower successes of the past four years, particularly in the support to our people.

(1) Active Component End Strength

From FY 1980 to FY 1984, Active Component end strength increased by 98,568 personnel, or about 4.8 percent. The Navy and the Air Force experienced the greatest growth, both in absolute and relative terms (7.1 percent from FY 1980 to FY 1984). Navy's manpower growth of about 2 percent per year approximates the increased number of billets at sea; however, the fleet support requirements have not been met. Air Force growth supports new and expanded missions and associated force structure modifications. The manning of Marine units increased at a rate proportional to the growth in the Marine force structure, which is essentially the same as that programmed prior to FY 1983.

Chart II.D.2
Active Military Strength*
(End Strengths)



* Excludes Navy Training and Administration of Reserve (TARs) that are counted as Selected Reserves

(a) Active Component Military Manpower

Adequate strength is a fundamental determinant of unit personnel readiness. However, over the past two years, the Congress denied about 60 percent of the growth in Active Component end strength requested for FY 1984 and FY 1985. This denial comes at a time when our force structure must expand to meet the increasing threat. Manpower requirements and strength levels are not independent of other modernization programs. As end strength levels are artificially constrained, the resultant undermanning of much needed new programs ultimately degrades overall readiness.

We plan to increase the number of active military personnel at the end of FY 1986 by about 25,600 (about 1.2 percent) over FY 1985 end strength levels (see Chart II.D.2). Concomitantly, we anticipate the percentage of minorities will remain relatively stable, and the overall percentage of women will increase slightly.

(b) Recruiting

We continue to make every effort to enhance both the attractiveness of military service and our competitiveness in the youth labor market. Our success in recruiting the necessary quality and quantity of new personnel has continued as all four Services met or exceeded their accession objectives. Table II.D.1 shows actual enlisted accessions for FY 1984 and planned recruiting levels through FY 1986.

Table II.D.1

Enlisted Active Duty Accessions (Numbers in Thousands)

	Actual		Planned	
	FY 1984 Number	Percentage of Objective	FY 1985 Number	FY 1986 Number
Army	142.3	100	139.9	145.1
Navy	82.9	100	85.8	89.1
Marine Corps	42.2	109	39.2	37.6
Air Force	61.1	100	67.0	69.8
Total	**328.5**	**101**	**331.9**	**341.6**

The young men and women we recruit to meet our objectives are of an unprecedented high quality. The quality of our enlistees as measured by educational attainment (high school graduation) and scores on the enlistment test reflects substantial improvement since FY 1980. Charts II.D.3 and II.D.4 reflect these increases in quality.

We are confident that we can continue to satisfy our personnel requirements with volunteers. However, the sustained economic recovery and the decline in the military age youth population pose difficult recruiting challenges. There is some evidence of this decline in quality and quantity of reserve pools of potential recruits. We must provide a competitive level of pay and benefits and ensure that the Services have adequate recruiting resources in order to continue attracting high quality men and women.

Chart II.D.3

High School Diploma Graduates (HSDG) and Armed Forces Qualification Test (AFQT) Category Among Nonprior Service (NPS) Active Duty Accessions

(Percentage of NPS Accessions)

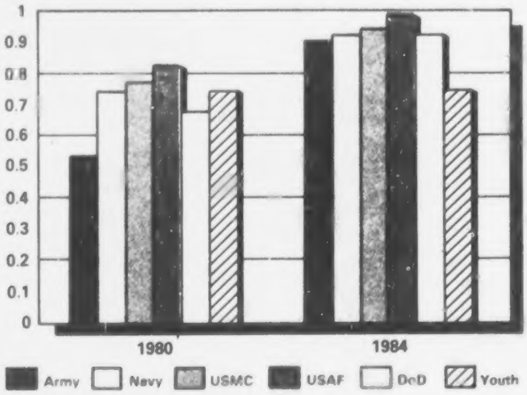
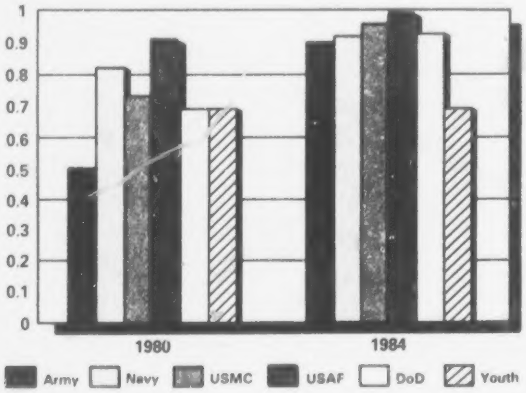


Chart II.D.4

Armed Forces Qualification Test (AFQT) Category Among Nonprior Service (NPS) Active Duty Accessions

(Percentage of NPS Accessions)



(2) Experience

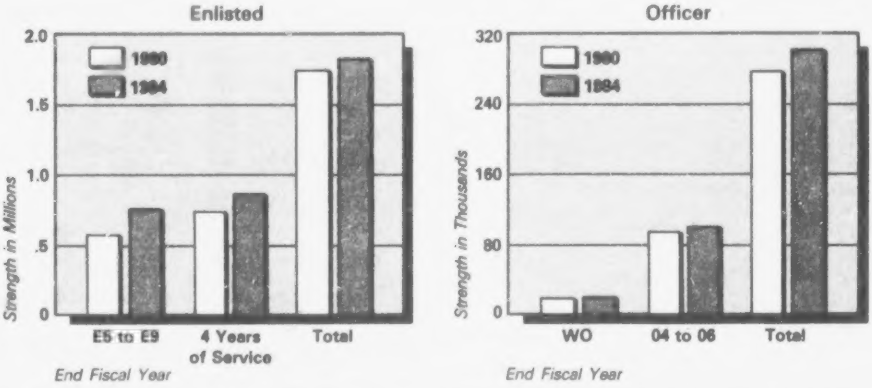
Experience, another key element of personnel readiness, is a costly, but necessary, dimension of the force. Experience must, therefore, match our needs as closely as possible. Too much experience can be very costly and can result in promotion and career stagnation, while too little experience seriously detracts from our capability to accomplish our mission. We have had great success in improving experience levels throughout the force and in eliminating many of the shortfalls so common four years ago. Our goal now is to manage the force so as to maintain the proper experience levels appropriate to our needs and to the career management needs of our people.

(a) Officer

Since FY 1980, the total officer population has increased nearly 26,000, or over 9 percent, with over 15,900 of this net increase (62.3 percent) among officers with between four and nine years of service. Additionally, there has been an increase of minority and female officers during this same period. Since FY 1980, the number of minority officers has increased over 25 percent, and the number of female officers has increased over 33 percent. More junior officers are choosing to stay in the Service at their initial career decision point (generally the fourth or fifth year of service). Moreover, these junior officers today generally have more years in service and in grade, therein providing better and more experienced leadership at the unit level.

Retention of officers should remain at an acceptable level. Good retention has improved the manning in some critical skill areas; however, experience shortages will remain for some time as a result of low retention in previous years.

Chart II.D.5
Experience and Leadership



We solicit congressional support for our legislative proposal to establish a new framework for the management of flag and general officers. This legislation would provide for the necessary oversight, flexibility, and responsiveness required to administer changing flag and general officer requirements in support of national security objectives.

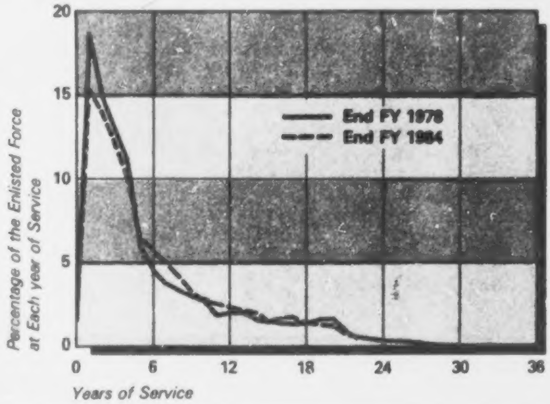
(b) Enlisted

Sustained retention success has permitted development of a force with the experience needed to meet the demands for skilled technicians, supervisors, and managers. The average years of service have increased from 5.55 to 5.93 years, an increase of 6.8 percent.

The long existing noncommissioned officer/petty officer shortfall has been significantly reduced as a result of our retention successes. This becomes particularly evident in the growth in average grade of the enlisted force by 4.2 percent.

Chart II.D.6

Experience of Enlisted Force



Enlisted retention is now at an acceptable level in most segments of the force, although chronic shortages persist in some skills, particularly in those career fields that are highly marketable in the private sector and those that involve arduous duties in the military. Many of the shortages remain in the middle grades and will be alleviated only when people now in the lower grades develop the skill and experience needed to move upward. Although this will not happen overnight, interim measures, such as aggressive retraining programs and better promotion opportunities for shortage skills, are being implemented.

(3) Skills

The availability of personnel in needed skills at the unit level directly affects personnel readiness. Recently, there have been some gains in skill areas where shortages have contributed to degraded readiness in the past.

(a) Officer

Although we continue to experience shortages in some critical officer skills, our manning position is improving.

- -- Our most serious problem is the 18 percent shortage of nuclear trained submarine and surface officers in the grades of lieutentant commander to captain. The situation is getting worse and this may rise to 22 percent by FY 1986, unless corrective measures work.
- -- Although requirements for pilots continue to grow, we have reduced the pilot shortage from over 5,000 in FY 1981 to about 950 in FY 1984. There are some indications that future retention trends may not be as favorable as those we have experienced in recent years. External economic considerations, which include factors such as airline hiring practices, influence retention patterns for highly skilled pilots.

(b) Enlisted

In addition to increased manning in critical enlisted skills, we are maintaining high quality personnel in these skills. Four factors are responsible for the growth and quality we have achieved in these enlisted skills. First, positive accession and retention trends are stabilizing the force while improving its overall quality. Second, our use of enlistment bonuses, education programs, and other monetary incentives enhances the quality of recruits entering these critical skills. Enlistment and Selective Reenlistment Bonuses remain the most cost-effective accession and retention incentives. Third, we are planning more effective training in areas of greatest need. And finally, attrition during the first six months of service has dropped from 15.0 percent in FY 1981 to 11.9 percent in FY 1984. Since people who now start training are more likely to complete it, our training resources are used more efficiently.

(c) Training

Training imparts the necessary skills to survive and win on the battlefield. Toward that end, one of our foremost objectives is to continue the progress the Services have made in improving more effective training both for individuals and for military units. The quality of military training, both of individuals and of operational units, is generally high, but better management and support can bring further improvements. To meet this need, we have instituted two management initiatives designed primarily to capitalize on opportunities offered by new technology. First, we have established within the Office of the Secretary of Defense (OSD), with Joint Staff participation, an OSD Steering Committee on Training and Training Technology. The purpose of this group is to assure early recognition of training problems and to take prompt actions to solve them, making full use of advances in training technology. Second, DoD has established a Defense Training Data and Analysis Center (TDAC) in Orlando, Florida. TDAC provides a defense-wide capacity for gathering, organizing, and analyzing data and information on all aspects of military training.

(4) Stability

Stabilizing personnel assignments contributes to improved readiness because individuals now stay together longer in the same unit thereby improving that unit's teamwork and mutual confidence. Additionally, crew/team proficiency is increased, tactical competency is improved, the need for repetitive team training is reduced, and operational efficiency and safety are enhanced.

During FY 1980-84, unit stability (percent of servicemembers in the same unit from one year to the next) increased DoD-wide by 1.7 percent to 44.8 percent. Greater stability is a result of lower attrition, greater retention, and fewer accessions; greater management discipline; higher overall personnel quality; and greater job satisfaction among our servicemembers.

(5) Other Related Factors

Inherent factors supporting these four primary aggregate indicators of personnel readiness -- strength, experience, skills, and stability -- are DoD's quality of life and compensation programs.

(a) Quality of Life

Quality of life encompasses many individual DoD programs that contribute to sustaining personnel readiness by recognizing the importance of the people who make up the Armed Forces and acknowledging their contributions to the defense effort. We have built on efforts begun early in this Administration to improve existing programs and have also developed new programs to help compensate for the demanding aspects of military life.

Our first priority here is to improve the quality of life in overseas and remote areas, both for single service personnel and, where accompanied tours are authorized, for families. These initiatives include building and remodeling schools for dependent children, child care facilities, physical fitness centers, family service centers, chapels, and multipurpose recreational facilities. Also, we have undertaken management actions to improve the benefits provided by commissaries and exchanges.

Chart II.D.7
Quality of Life

- Medical Care
- Child Care
- Legal Assistance
- Religious Programs
- Assignment Policies
- Housing
- Recreation Services
- Family Services
- Education Programs
- Commissaries
- Post/Base Exchanges
- Postal Services
- Financial Counseling

We recognize that service people are making career decisions based on their families' considerations of their quality of life. It appears that a significant correlation exists among quality of life programs, spouse satisfaction, and recruitment and retention of qualified people on the one hand, and the discipline, morale, and readiness of our forces on the other. In FY 1984, we created a Family Policy Coordinating Committee to bring together policymakers throughout DoD to shape and influence the direction and extent of family support efforts. In order to target DoD resources more cost-effectively, we have commissioned a DoD-wide family survey, to poll approximately 131,000 servicemembers and 75,700 spouses on demographics, satisfaction with military life, and needs for additional support. We have expanded our efforts to work with agencies outside of DoD in support of family programs. Additionally, we have made great strides in incorporating family issue awareness training into officer professional school curricula. We are operating 272 family service centers on DoD installations worldwide. To meet the growing demand for child care, the Department operates nearly 550 child care facilities on some 400 military installations worldwide. Family day-care programs are also being expanded.

In FY 1984, we recognized the contribution that military spouses make to the defense effort by observing a National Military Spouse Day on May 25, 1984.

(b) Compensation

Our ability in recent years to compete with the private sector for the manpower required to meet our national security objectives is due, in no small part, to the significant improvements that have been made in our compensation system. There is no question that a competitive compensation program is vital to our continued success.

The compensation program, both pay and benefits (non-pay), that we are proposing for FY 1986 is a comprehensive package designed to improve the overall quality of life for servicemembers. In light of government-wide efforts to reduce the federal deficit, we are requesting only a 3 percent military pay raise, which will start in FY 1985. Recognizing that this will not match the projected private sector wage growth, we are asking the Congress to reduce the impact of a smaller pay raise by approving it one quarter early, thus making it effective July 1, 1985. In addition to this, we are also requesting approval for restructuring of the permament change of station (PCS) reimbursement system. These initiatives, including a request to increase the maximum weight allowance for household goods from 13,500 pounds to 18,000 pounds and fund four days temporary lodging expenses not to exceed $110 per day, will allow for a more realistic reimbursement of the costs associated with the PCS moves that we require of our men and women. That we expect a great deal from our servicemembers is an understatement. That our men and women in uniform accept the hardships and sacrifices inherent in military service is a testimony to their willingness to do more than their share to keep our country strong. That they should have to pay to do this is patently unfair. A recent Air Force survey revealed that when making a PCS move, the average servicemember was reimbursed only one dollar for every four dollars spent out-of-pocket in connection with the move. In addition, over half of our servicemembers making a PCS move needed to borrow, including withdrawal from savings, to meet their expenses. We are committed to ensuring that the costs of a government-directed move are borne by the government, not inflicted on the individual servicemember.

We are also considering a dental care program for active duty dependents. This is desirable if the military medical program is to continue to compete on favorable terms with private health care plans and remain an effective recruiting and retention incentive. In addition, we will be considering legislation to implement certain recommendations of the Fifth Quadrennial Review of Military Compensation (QRMC). Included in those recommendations are improvements to certain special and incentive pays, designed to enhance the recruiting and retention of members in those specialty skills that are still experiencing shortages. Increases in Servicemen's Group Life insurance and in the death gratuity, along with the initiation of a burial expense benefit, all of which were recommended by the QRMC, will be part of the compensation program being considered for FY 1986.

Finally, in the area of compensation, our members must be protected from reductions in pay resulting from changes in tax policy if fairness is to be maintained. Current tax treatment of allowances and other benefits of military service is integral to the Military Compensation System and should not be changed without corresponding corrections in the total compensation package.

(6) Summary

It is therefore imperative that continued attention be directed to recruiting, retention, compensation, and quality of life resource levels. Sufficient resource levels in each of these areas will allow us to achieve our goal of providing adequate manpower to operate, maintain, and support our equipment effectively and efficiently. Inadequate manpower can only place debilitating stress on our personnel, with further degradations in readiness and sustainability capabilities. Finally, history shows that while manpower losses can occur quite rapidly, it can take a decade to recoup such losses.

b. Reserve Military Manpower

The Reserve Components are charged with providing trained units and qualified individuals for active duty in the Armed Forces in time of war or national emergency. These units and individuals are to be available on short notice and capable of assuming major contingency roles as demanding as those in the active force.

This Administration has supported continuous improvements to the Reserve Components within the Total Force Policy. In July 1981, President Reagan strengthened the Total Force Policy first enunciated by the Secretary of Defense in 1970. In August 1982, DoD further strengthened the Total Force by implementing measures to ensure the short notice readiness capabilities of the reserve forces. These policy decisions have been followed by actions to increase manning, training, and readiness.

The Ready Reserve is comprised of reserve units, individual reservists assigned to active duty units, and individuals subject to recall to active duty to augment the active force in time of war or national emergency. Within the Ready Reserve, the Selected Reserve consists of those units and individuals designated as so essential to initial wartime missions that they have priority over all other reserves. The second category of the Ready Reserve is the Individual Ready Reserve (IRR)/Inactive National Guard (ING), and consists of those reservists who are not in the Selected Reserve but are subject to recall on an individual basis to provide initial augmentation of active or reserve units.

(1) Selected Reserve Manpower Strength

In FY 1984, the Selected Reserve attained their highest manning levels in history -- 1,045,828 men and women. The previous high of 1,006,000 was reached in FY 1959 when individuals were allowed to substitute enlistment in the Ready Reserve for two years of conscripted service in the Active Component. Since FY 1980, the Selected Reserve has grown at four times the rate of the active force and at the end of FY 1984 stands 22 percent higher than in FY 1980 (see Table II.D.2).

Increased Selected Reserve manning has resulted from our emphasis on increasing the readiness of the Reserve Components as a vital part of our national defense. Strong congressional support has provided additional full-time recruiters and unit support personnel, while improving compensation incentives and benefits.

Table II.D.2

Selected Reserve Manpower[a]

(End Strength in Thousands)

	Actual		Programmed	
	FY 1980	FY 1984	FY 1985	FY 1986
Army National Guard	367	434	438	450
Army Reserve	207	275	286	301
Naval Reserve	97	121	129	142
Marine Corps Reserve	35	41	42	43
Air National Guard	96	105	108	111
Air Force Reserve	59	70	75	77
Total[b]	**861**	**1,046**	**1,077**	**1,124**

[a] Numbers include Navy Training and Administration of Reserves (TAR).

[b] Numbers may not add to totals due to rounding.

(2) Selected Reserve Recruiting

The growth of Selected Reserve manning has necessitated large increases in recruiting of both nonprior and prior military service personnel. In spite of an improved economy, the declining size of the military-age population, and reduced active force separations, the quantity of enlistees continues to improve (see Table II.D.3.).

Table II.D.3

Selected Reserve Enlistments

(Nonprior/Prior Service in Thousands)

	Actual		Programmed	
	FY 1980	FY 1984	FY 1985	FY 1986
Army National Guard	50/47	60/50	55/44	54/44
Army Reserve	26/34	33/34	37/32	39/39
Naval Reserve[a]	3/25	10/22	10/30	10/28
Marine Corps Reserve	5/4	9/5	9/6	10/6
Air National Guard	7/10	6/8	6/9	5/9
Air Force Reserve	3/10	3/9	4/11	4/11
Total[b]	**94/128**	**122/127**	**130/133**	**120/137**

[a] Reflects new Sea Air Mariner (SAM) Recruiting program in FY 1984 and after.

[b] Numbers may not add to totals due to rounding

An important measure of the quality of reserve enlistees is the proportion that are high school graduates. Another key measure is their scores on the AFQT. The percentage of high school graduates rose from 76 percent in FY 1980 to 85 percent in FY 1984 (see Table II.D.4).

Table II.D.4

Reserve Enlistments of High School Graduates

	FY 1980	FY 1984
Total Enlistments	222,100	218,400
High School Graduates[a]	168,400	185,000
Percent	75.8	84.7

[a] Includes equivalency certificate and diploma graduates and students currently in high school who are expected to graduate.

The Reserve Components attained excellent recruiting and retention results in a much improved economic environment and in spite of an accessible youth population declining in size since 1979. The sustained economic recovery and a further decline in the 18-21 year old population will provide challenges that will require continued congressional and public support. With this support, DoD will be able to continue to attract and retain the required personnel.

In support of this Administration's policy to increase the opporunities for women and minorities, the number of women and minority personnel in the Reserve Component has continued to increase. The number of women grew from 68,000 in FY 1980 (9.3 percent) to 102,000 in FY 1984 (9.8 percent). Similarly, minority personnel increased from 170,000 in FY 1980 (20.0 percent) to 226,000 in FY 1984 (21.6 percent). Additional increases are expected in both categories in future years.

(3) Full-Time Support (FTS) Personnel

FTS personnel are a key factor in achieving the unprecedented level of readiness that now exists within the reserve forces. Total FTS strength for all components has increased from 12.5 percent of the Selected Reserve strength in FY 1980 to 14.2 percent in FY 1984. All Active Guard and Reserve and Military Technician (MT) personnel are counted as part of the Selected Reserve. Further increases are projected as shown in Table II.D.5.

Table II.D.5

Full-Time Support Personnel[a]
(End Strength in Thousands)

	Actual		Programmed	
	FY 1980	FY 1984	FY 1985	FY 1986
Army National Guard	32	43	46	56
Army Reserve	17	29	31	34
Naval Reserve	20	23	24	27
Marine Corps Reserve	5	6	6	7
Air National Guard	26	30	32	33
Air Force Reserve	11	13	14	15
Total[b]	**111**	**143**	**153**	**172**
Percent of Selective Reserve	12.9	13.7	14.5	15.2

[a] Includes Active Guard and Reserve (AGR), Military Technicians (MT), Active Component (AC) personnel, and Civil Service personnel (CS).

[b] Numbers may not add to totals due to rounding.

The mix of FTS personnel has evolved within each component based on historical and mission differences. It is DoD's policy that each Service continue to establish its own mix of FTS personnel that best suits its unique needs.

Table II.D.6

Full-Time Support Personnel - By Type
(FY 1984 End Strength in Thousands)

	AGR	MT	AC	CS	Total
Army National Guard	16.7	24.6	1.6	0.2	43.0
Army Reserve	8.8	7.0	6.7	6.1	28.5
Naval Reserve	13.3	–	6.9	3.1	23.3
Marine Corps Reserve	0.8	–	5.0	0.2	6.1
Air National Guard	5.8	21.1	0.7	1.9	29.5
Air Force Reserve	0.5	8.0	0.7	4.3	13.5
DoD Total[a]	**45.9**	**60.7**	**21.6**	**15.7**	**143.9**

[a] Numbers may not add to totals due to rounding.

(4) Individual Ready Reserve/Inactive National Guard

The Individual Ready Reserve (IRR) and Inactive National Guard (ING) consist of a pool of individual manpower within the Ready Reserve, who are not part of the Selected Reserve. They have served previously in the active forces or Selected Reserve. Many have some obligated service remaining. IRR/ING individuals would be mobilized to augment initial demands for military manpower of the active force and Army National Guard units. This manpower pool shrank from nearly 1.6 million persons in FY 1972 (swollen by draft considerations) to a low of 342,000 in June 1978, which was well below our mobilization needs. A number of legislative and policy initiatives increased the IRR/ING strength to 445,000 in FY 1984 (see Table II.D.7). The new eight-year military service obligation implemented June 1, 1984, along with IRR bonuses is expected to provide an additional 150,000 IRR members beginning in FY 1990.

Table II.D.7

Individual Ready Reserve and Inactive National Guard
(End Strength in Thousands)

	Actual		Programmed	
	FY 1980	FY 1984	FY 1985	FY 1986
Army National Guard (ING)	7	9	10	11
Army Reserve	205	277	271	273
Naval Reserve	97	69	88	99
Marine Corps Reserve	57	48	48	48
Air National Guard (ING)[a]	—	—	—	—
Air Force Reserve	47	41	42	41
DoD Total[b]	**413**	**445**	**454**	**467**

[a] Fewer than 500.

[b] Numbers may not add to total due to rounding.

c. Civilian Manpower

(1) The Role of Civilians

The United States has a long established policy of using civilians to the maximum extent possible to assist in maintaining our national security. This policy has a number of advantages. It reduces to a minimum the number of men and women required on active duty. Moreover, civilians cost less in many functions than uniformed personnel. Civilians also provide stability and continuity to those functions that require rotation of uniformed personnel. Marketplace trends in the coming years may reinforce civilians' cost advantage as a declining youth population forces DoD to compete harder with the private sector for prospective recruits.

Civilians participate in all defense activities not potentially involving combat and account for one-third of all active DoD manpower. They comprise over half of DoD's personnel in research and development and base operations support and about 95 percent of all workers in depots, shipyards, and other logistics activities that directly affect the readiness of our forces. Of particular importance, many civil servants occupy overseas positions which would be essential to military operations in wartime. The Mobilization chapter discusses how we would fill these essential positions during a crisis.

(2) Size of the Civilian Workforce

In FY 1986, DoD plans to employ about 1,107,000 civilians of whom about 1,020,000 will be hired directly by the United States. The remainder will be indirect-hires, foreign nationals paid by their own government for working at U.S. bases in accordance with Status of Forces Agreements. We reimburse the host country for the cost of these personnel.

These employment totals are almost 10 percent higher than FY 1980 levels and reflect the increased defense resources and workload. Expansion in our overall defense program over the last four years has necessitated the additional employees. The increase in civilian spaces will continue to help DoD reduce depot maintenance backlogs, manage spare parts better, handle more foreign military sales, and civilianize former military positions, thus allowing the military to return to military jobs and increase readiness. In spite of this growth, civilian manpower costs have declined sharply as a share of the total DoD budget. In FY 1980, 16 out of every 100 dollars spent by DoD went for civilian related expenses. Five years later this portion has dropped to 9 out of every 100 dollars.

As a result of congressional action, in FY 1985 we are not operating under any ceiling on the number of civilians we can hire. All DoD activities can employ as many civilians as are needed to complete funded work. We welcome this opportunity to demonstrate that we can manage all our programs more effectively without end-of-year employment restrictions. During the two preceding fiscal years, only DoD's industrially funded activities, such as depots and shipyards, were exempted by the Congress from ceilings. We benefited from this exemption in several ways. We gained through:

-- Greater ability to respond to unexpected workload changes;

-- Elimination of the need to drop workers from the rolls temporarily to avoid exceeding ceilings; and

-- Freedom to devote more emphasis to employee training as well as contract monitoring.

Just as important, the industrially funded activities did not abuse their freedom by hiring more civilians than were required to complete funded work. During FY 1985, DoD will report to the Congress the results of removal of all hiring ceilings.

(3) Characteristics of Civilian Workers

About 32 percent of DoD's full-time employees with permanent jobs, excluding indirect hires, are women and 22 percent belong to a minority group. About two-thirds of our civilians are in General Schedule (GS) or General Manager (GM) (white collar) positions and provide engineering, scientific, professional, technical, clerical, and administrative services. Our blue collar workers -- who are paid under the Federal Wage System -- repair ships, planes, tanks, and other equipment, maintain our installations, and provide most of the manpower for other logistics and supply operations.

The average grade of our GS/GM employees is about 8.2, up less than 0.4 in ten years. Four-fifths of this growth was due to a change in the composition of our workforce, i.e., we hired proportionately fewer in occupations with lower average grades. This record was achieved during a time when defense technology became more complex and competition from the private sector for our scientists and engineers accelerated.

d. Programs to Raise Workforce Productivity

Fiscal responsibility demands that DoD use its workforce as efficiently as possible. Although the productivity of our civilian workforce has risen faster than the federal average, we are continuing to work in several ways to raise the productivity of all our employees, both military and civilian. At the same time, we are using private employees where they are less expensive than civil servants and where it is not essential to use uniformed personnel. The Installations chapter contains further information on our Commercial Activities Program.

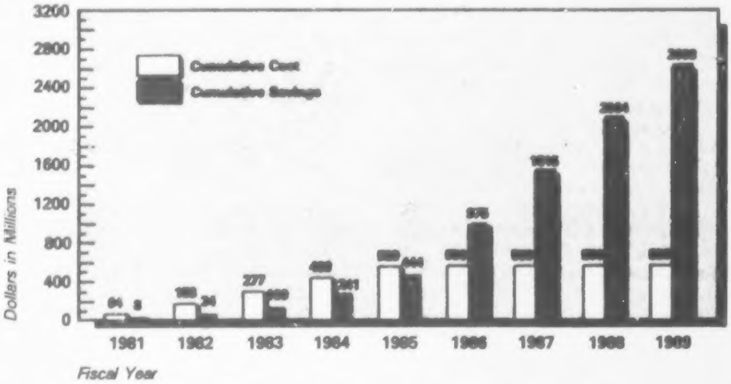
We are applying procedures similar to those of the Commercial Activities Program to those activities exempt from competition with the private sector. Under the Efficiency Review Program, organizations develop performance work statements that describe the work to be done and the standards to be met. The organizations then determine the most efficient means of completing the work statements. The goal is to minimize the costs for a given function so that manpower and other resources can be reassigned to other jobs.

DoD has recorded very high returns from investments in labor-saving equipment. Our major capital purchases, under the Productivity Investment Fund (PIF) Program, typically pay for themselves in reduced labor costs in less than two years. For example, the LOGMARS project uses electronic bar-coding of material to cut the time required in inventory activity. In another area, computer-aided design and manufacture projects have raised the output of our engineers. In FY 1986, we plan to spend $147 million under the PIF program, which accounts for about 70 percent of DoD's labor-saving investments, other than industrial fund investments which come under the Asset Capitalization Program. Chart II.D.8 shows the cumulative costs and savings from PIF projects undertaken in FY 1981-85.

We also know that employee motivation strongly affects productivity. We have added new ways in which outstanding civilians can be recognized and rewarded. We are also experimenting with how DoD can share with workers the gains from greater than expected productivity. The Quality Circle Program is designed to give employees a chance to work with their colleagues and supervisors in improving the management of their activities. We gain not only from the suggestions of the workers but also from the better morale that results from their ability to influence how their organizations function.

Chart II.D.8

Productivity Investment Funding
FY 1981 - 1989 Investment Costs vs. Savings



E. THE INDUSTRIAL BASE

1. Introduction

During the past year, significant progress has been made in strengthening yet another vital aspect of our national defense -- America's industrial base. We have initiated programs over a broad front to include both the public base and over 30,000 private sector prime and subcontractors. The President's Economic Recovery Program establishes the foundation for these initiatives and implements programs that both meet our peacetime needs and also provide the necessary measures to expand production during a crisis or hostilities. Private industry is joining us in the areas of surge production assessment, productivity improvement, and acquisition cost reduction. The Services have aggressively revitalized their respective Industrial Preparedness Programs to help identify critical items and potential production bottlenecks for surge and mobilization. For the first time, the Congress has authorized funding to support industrial surge responsiveness. Further activity in this area ranges from the Industrial Modernization Incentives Program (IMIP) to our efforts to encourage more cost-effective contract requirements. They include increased emphasis on efficient manufacturing facilities and greater attention to manufacturing plans as part of our acquisition strategies. We are optimistic that industry understands the challenges ahead. While more remains to be accomplished, we have firmly set the stage for continued progress.

2. Current Programs

a. Industrial Base Guidance

In addition to establishing the Industrial Base Program (IBP) as a DoD mission area, defense industrial base guidance has been clarified, defined, and prioritized. The four basic objectives are: peacetime production efficiencies, production surge capabilities, wartime sustainability, and effective industrial preparedness planning.

Significant milestones have been reached in achieving an industrial base capable of responding more effectively to our critical defense requirements. The first production surge investment was funded in FY 1985. It provides accelerated production of the TOW 2 missile in the event of a crisis. The Air Force has identified and programmed funding for FY 1986 to remedy shortfalls in production surge capabilities for three critical items (combined effects munitions, traveling wave tubes, and chaff). Under Title III of the Defense Production Act, the Congress has appropriated funding in the FY 1985 budget to establish or expand needed manufacturing capacity for critical materials. The Joint Chiefs of Staff have begun a program to identify and to prioritize the most essential warfighting materiel needs of the commanders in chief of unified and specified commands. This will provide a common baseline to allocate scarce resources to improve industrial responsiveness. The Services and the Defense Logistics Agency (DLA) now are staffed with qualified industrial planners to perform the essential reviews and analyses of our industrial base program. Manufacturing technology and IMIP investments have gradually increased and are reflected in measures of improved producibility and productivity. The defense industrial base guidance will include additional refinements made for the FY 1987 Defense Guidance.

b. The Defense Production Act

The Defense Production Act (DPA) of 1950 (Chart II.E.1) provides the principal authority for vital readiness programs directed toward maintaining the national defense industrial base for peacetime, surge, and national emergency requirements. Over the past 30 years, we have relied heavily on this authority in order to maintain ongoing defense contracting and preparedness programs in support of national security objectives. The B-1B bomber, cruise missile, and Blackhawk helicopter are three programs for which we have used the priority rating available under Title I of the DPA in order to maintain production schedules and reduce lead-times and costs. DoD has worked closely with the Department of Commerce in revising their regulations for implementing Title I and for maintaining the industrial readiness necessary in time of national emergency. DoD is updating its internal procedures to incorporate these new Commerce regulations.

Chart II.E.1
Defense Production Act
of 1950

Title I	Authorizes Allocation of Resources to Prevent Disruption of Production
Title III	Provides for Expansion of Industrial Capability to Meet National Security Needs
Title VII	Establishes Advisory Committees to Allocate Production During Wartime

In addition to our dependence on foreign sources for many raw materials, we are also experiencing a significant decrease in our domestic capability for processing and manufacturing certain industrial products. Title III of the DPA authorizes a variety of government financial incentives encouraging private sector investment to increase industrial capacity. We are exploring this method of establishing or expanding needed domestic industrial capability, particularly in areas in which foreign dependence can be damaging to our national security.

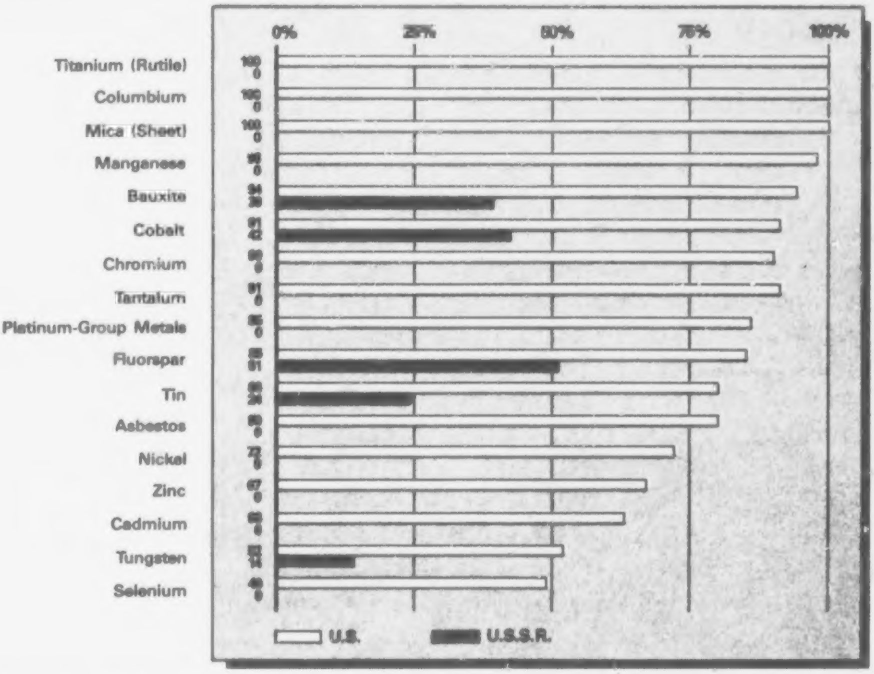
As a necessary part of industrial readiness planning, we are assessing our capability to exercise production options in a national emergency. An illustrative example is the conversion to domestic ilmenite from imported rutile necessary for the production of titanium. We have also analyzed production options necessary to produce graphite fibers to manufacture composites used in aircraft and missiles, germanium for sensors, gallium arsenide for integrated circuits, and materials for lasers. Such analyses enable us to assess the capabilities of the domestic industrial base to respond when needed.

c. National Defense Stockpile of Strategic and Critical Materials

The fundamental purpose of the stockpile, which is managed by the Federal Emergency Management Agency (FEMA), is to ensure a supply of critical raw materials to support the military, industrial, and civilian needs of the United States during an emergency. Chart II.E.2 highlights those materials for which we have a high import dependence.

Chart II.E.2

Imports of Selected Minerals and Metals [a]



[a] Net imports as % of 1982 consumption.

Source: U.S. Bureau of Mines.

The Emergency Mobilization Preparedness Board's (EMPB) Working Group on Industrial Mobilization has undertaken a study to review the process by which the national stockpile goals are set. This includes examination of scenarios, assumptions, and econometric models used to develop stockpile goals. New goals will be calculated using the results of the study.

d. Manufacturing Technology Program

The Manufacturing Technology Program seeks to improve the productivity and responsiveness of the defense industrial base by investing in advanced technologies for the production of DoD materiel. This is an established program contributing to improved industrial productivity on a broad national basis. One recent accomplishment is a manufacturing process for producing "crimped" miniature bearings and shaft assemblies for the turbine alternators used in mortar multi-option fuzes. This process has resulted in savings of $10.3 million to date. An additional $13 million savings is projected. Another accomplishment, the Automated Propeller Optical Measurement System (APOMS), has resulted in a $3.8 million yearly savings by permitting inspection of large ship propellers in 8 hours versus 140 hours by previous methods.

e. Industrial Property Management

Initiatives in this area include:

-- Completion of a technical review of Plant Equipment Packages (PEPs) that are retained to support mobilization production. The review revealed that some PEPs could not be responsive to emergency demands and suggested that PEP policy should be strengthened. A policy review is ongoing.

-- Improvement of the policies for obtaining and retaining a general reserve of plant equipment. This inventory system permits reutilization of equipment during peacetime and identifies machines that will be used to augment production in an emergency. The revised policy will ensure that only critical machines are retained.

-- Automation of the property management system used by the Defense Industrial Plant Equipment Center (DIPEC). Inventory records can now be accessed via remote terminals.

f. Emergency Preparedness Planning for Catastrophic Earthquakes

Because of the scientific concern of a catastrophic earthquake in California, recent government attention has been focused on preparations for minimizing the catastrophic effects of such an event. A review by an ad hoc committee of the National Security Council concluded that the "nation's preparations are inadequate to cope with the damage and casualties for a catastrophic earthquake, and with the disruptions in communications, social fabric, and governmental structure that may follow." Subsequently, the EMPB was established by presidential directive, with an Earthquake Working Group included as part of its composition. The National Plan of Action for emergency mobilization, developed by the EMPB, assigned responsibilities to various agencies for development of response and preparedness plans. To mitigate the potentially severe impact a catastrophic earthquake could have on our national security posture, we are developing preparedness plans to address those problems we expect could occur simultaneously with a catastrophic earthquake. Specific examples are: allocation of resources and restoration of utilities and public services essential for the operation of military installations and critical defense industrial facilities.

g. Defense Economic Impact Modeling System (DEIMS)

As part of our continuing effort to provide corporate planners information on planned defense activities that could affect investment decisions, we have provided over 4,000 small and large companies, industry associations, and individuals the projections of future defense requirements. This information is provided through the DEIMS and is based on the proposed defense budget. It projects defense spending on commodities and services over the next five years. We plan to increase the dissemination of this data during the next year.

h. Industrial Productivity

Just as productivity has become a priority within the private sector, so too has the achievement of increased productivity and manufacturing efficiencies become of paramount concern to DoD. It is a critical element in strengthening our industrial base and in reducing acquisition costs.

Through the Industrial Modernization Incentives Program (IMIP), we are continuing to develop and to refine contract incentives encouraging industry to make productivity enhancing capital investments. There has been significant activity under IMIP up to the point of actual implementation of individual contractor capital investment plans. After this phase, with some notable exceptions, experience is more limited. However, the IMIP process is an interactive one that builds on earlier efforts. Broad implementation will be a lengthy process, but long-term benefits will result. The most important lesson learned to date is that the process does work. Increased capital investment and enhanced productivity can be stimulated through efforts such as IMIP.

Another extremely important effort to improve the acquisition process deals with promoting more cost-effective definition of requirements in our weapon systems contracts. This initiative, authorized by the Deputy Secretary of Defense on January 11, 1984, is aimed at fostering more cost-effective application of specifications, standards, and data requirements. It encourages greater flexibility in how requirements are imposed -- particularly early in a program. Moreover, we are stressing progressive definition of requirements as a weapon moves into development instead of working from the start with detailed contract requirements that may turn out to be inappropriate. The Services have identified twelve major programs for initial application of this concept, including four of the Services' most important aircraft programs.

Productivity and quality are inseparable issues. Because quality has such a major impact on decisions about manufacturing processes, equipment, and supplies (and because quality has become an increasingly significant issue in defense materiel acquisition), DoD is emphasizing policies and programs directed toward improving product quality. Moreover, DoD encourages commitment from top management and promotes increased awareness and attention to quality problems during the design and manufacturing stages. In addition, DoD is reexamining its qualification and certification programs to determine whether quality is sufficiently stressed. Perhaps most important, we are trying to find new ways to include quality history into our source selection process.

Too often in the past, DoD has emphasized the performance characteristics of products it acquires rather than manufacturing efficiency. We have selected our contractors based on their design and engineering capabilities rather than their manufacturing capabilities. This is changing. We are now promoting increased attention to productivity and quality improvement plans as integral parts of our acquisition strategy. They are being given more visibility and are now increasingly important considerations during our source selection evaluations and major systems reviews.

3. Conclusion

A healthy and responsive industrial base has been and will continue to be an important element of our national security, not only to deter war but to fight a war if necessary. A revitalized economy and efforts by both industry and government have already produced measurable results. However, much more must be accomplished. We must continue to improve if we are going to get the most out of our defense dollars. This means vigilant attention to quality, productivity, and efficiency, while at the same time maintaining a sufficient reserve to meet any potential crisis. This is an ambitious agenda that places a major burden on industry. We will continue to provide every opportunity to create rewards in the acquisition process and, in response, industry must continually review manufacturing operations and aggressively move to replace outdated and inefficient capital equipment and improve productivity. We must correct deficiencies and reduce inefficiencies to ensure that our defense dollars buy the most capable forces possible. This, in turn, will enable both DoD and industry to continue the many positive contributions they are making to the strengthening of our nation's defense.

Part III
Defense Programs

A. LAND FORCES

1. Introduction

a. Force Rationale

The land forces of the United States -- the Army and Marine Corps -- occupy a central place in our conventional force planning. As our only combat forces capable of holding or retaking territory, they are key to our deterrent strength and forward-defense capabilities. In support of their deterrent role, we station Army divisions in Europe and the western Pacific, deploy Marine amphibious forces at sea and maintain a reservoir of rapidly deployable forces -- both Army and Marine -- in the United States.

The various types of contingencies for which we must prepare require forces of varying sizes and capabilities. For our most demanding task, a NATO reinforcement, we need forces that are large enough and heavy enough to defeat the heavily armored, tactically mobile forces of the Warsaw Pact. Deployments to other regions could well require lighter forces -- ones that are agile enough to fight their way across difficult terrain, yet sustainable enough to maintain their combat strength over time.

These widely varying demands present a dilemma for defense planners: those forces capable of countering a massive ground invasion -- heavy armored and mechanized units -- are the most difficult to deploy rapidly, while lighter forces -- designed to deploy more rapidly, against increasingly sophisticated threats worldwide -- are less capable on arrival. We partially solve this dilemma by prepositioning equipment and supplies abroad, near areas where U.S. forces might be needed.

Substantial portions of the active force structure are organized and trained primarily for rapid-response and forcible-entry operations worldwide. Such forces include, in addition to the Marine divisions, the Army's four planned light infantry divisions, along with the 82nd Airborne Division, the 101st Airborne Division (Air Assault), and a ranger regiment. Once deployed, these forces need timely reinforcement and logistics support to build up their strength for prolonged combat. A further consideration, then, in designing our land forces is providing adequate combat support (e.g., artillery and combat engineers) and combat service support (e.g., medical care and maintenance) to sustain them in combat.

b. Program Goals

For our land forces to provide the capabilities we need, they must be:

- Structured properly;
- Able to respond quickly;
- Capable of sustained combat; and
- Provided with modern weaponry and equipment.

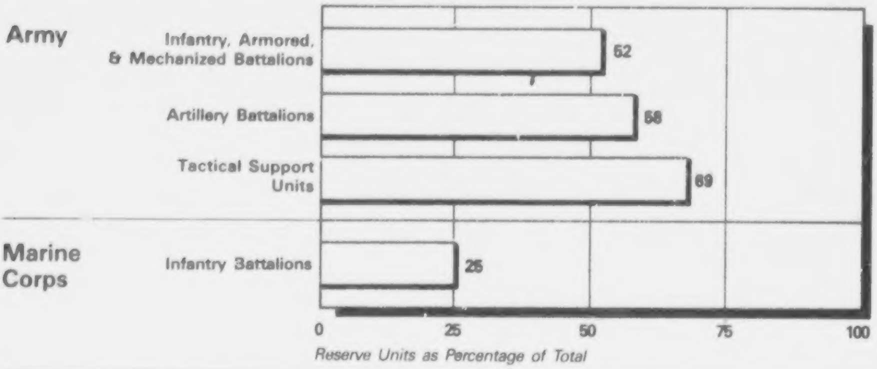
The last point is particularly important. The Army and Marine Corps were hit hard by the spending cutbacks of the 1970s. As procurement programs were scaled back, inventories of weapons and equipment shrank to unacceptably low levels. That this occurred while the Soviets were engaged in a buildup and modernization of their ground forces only compounded the problem. Our program seeks to offset those unfavorable trends and restore the deterrent strength of our land forces.

c. Force Composition

By FY 1986, the force structure will have expanded to 32 divisions. Of those, 21 divisions (18 Army and 3 Marine) will come from the active force; the remaining 11 (10 Army and 1 Marine) will be supplied by the reserves. These divisions, supplemented by separate nondivisional brigades and regiments, form the cutting edge of our land forces. They are supported by a wide variety of active and reserve units and are backed by an extensive training and support base.

In order to take advantage of the economies represented by the Reserve Components, the Army's active divisions rely on reserve forces to achieve their full combat potential. Of the 18 active Army divisions, five will be "rounded out" by at least one reserve combat brigade, while four others will use one or more reserve battalions to reach their full strength. Additionally, two of the new light infantry divisions, the 7th and 25th, will be "rounded up."[1] In this way, a total of 29 reserve battalions will be used to flesh out active divisions. In addition, the Reserve Components provide a large number of service support units for the active force, many of which would deploy within 10 days of a mobilization.

Chart III.A.1
Projected Contribution of Reserve Components
(End FY 1985)



---

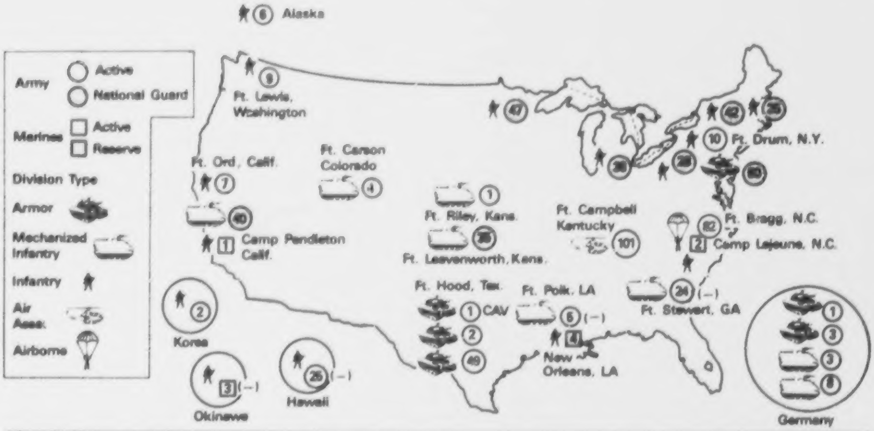
[1] A roundout unit is one that completes the structure of an active unit (supplying, for example, the third brigade of a three-brigade division). A roundup unit, on the other hand, augments an active unit's structure (furnishing, for example, a fourth brigade for a three-brigade division).

But our use of reserve forces extends well beyond "roundout/roundup" and rapidly deployable support units. Chart III.A.1 shows just how much.

d. Force Disposition

Chart III.A.2 shows the planned location of the Army's and Marine Corps' active and reserve divisions at the end of FY 1985. In addition to the forward deployments shown, two brigades of Army divisions based in the continental United States (CONUS) are stationed in Europe, and one Marine brigade is based in Hawaii. The Army also maintains a separate brigade and two armored cavalry regiments in Europe, five active and fifteen reserve brigades and regiments in CONUS (not involved in roundout/roundup), one active brigade in Panama, an active brigade and two brigade-sized units of reserves in Alaska, and another brigade-sized reserve unit in Puerto Rico.

Chart III.A.2
Deployment of U.S. Divisions


6 Alaska
Army
Active
National Guard
Marines
Active
Reserve
Division Type
Armor
Mechanized Infantry
Infantry
Air Assa.
Airborne
9
Ft. Lewis, Washington
Ft. Ord, Calif.
7
40
1
Camp Pendleton Calif.
Ft. Carson Colorado
4
2
Korea
3 (–)
Okinawa
25 (–)
Hawaii
1
Ft. Riley, Kans.
35
Ft. Leavenworth, Kans.
Ft. Hood, Tex.
1 CAV
2
49
Ft. Polk, LA
5 (–)
4
New Orleans, LA
47
38
28
42
26
10 Ft. Drum, N.Y.
50
Ft. Campbell Kentucky
101
82
Ft. Bragg, N.C.
2 Camp Lejeune, N.C.
24 (–)
Ft. Stewart, GA
1
3
3
8
Germany

2. FY 1986-90 Programs

a. Force Structure

In FY 1986, we will continue to reorganize and consolidate the Army's active force structure as more modern weapons systems become available. Consistent with that strategy, in FY 1985, we began reorganizing the 9th Infantry Division into a one-of-a-kind, high technology motorized division (HTMD). That division, based at Fort Lewis, Washington, is experimenting with many of the combat systems and techniques that could be used by light forces.

FY 1986 will see further advances in the light force structure, as we flesh out the new active light divisions being formed this year. The 7th Infantry Division, based at Fort Ord, California, is being restructured as a light division of about 10,000 men. It will be used to examine ways to enhance the deployability and combat strength of light forces. The tank and mechanized battalions now with the 7th and 9th Divisions will be retained as part of a nondivisional brigade that will be available for reinforcing light divisions in high-threat areas. In FY 1986, we will be activating the initial increment of the 6th Light Infantry Division; another light infantry division, the 10th, continues the activation begun in FY 1985. Both divisions will be assigned reserve roundout brigades. The 10th will be headquartered at Fort Drum, New York, while the 6th will be based in Alaska. A fourth active light infantry division will be created by converting the 25th Division, based in Hawaii.

Table III.A.1 shows the resulting distribution of heavy and light forces by Service and unit type.

Table III.A.1

Distribution of Heavy and Light Forces
(End FY 1986)

Divisions	**Heavy**	**Light**	**Total**
Active Army	10	8	18
Army National Guard	4	6	10
Active Marine Corps	—	3	3
Reserve Marine Corps	—	1	1
Total	14	18	32
Nondivisional Maneuver Brigades/Regiments[a]			
Active Army	6	4	10
Army Reserve Components	11	7	18
Total	17	11	28

[a] These units have not been assigned a roundout/roundup mission.

Programs for the Special Operations Forces (SOF) focus on improving their capabilities for operations at the lower end of the conflict spectrum (e.g., counterterrorist activities). We are adding a new ranger battalion in FY 1985, while continuing to fill out the SOF units activated in FY 1984.

We are also continuing to increase personnel strength in the support units activated in recent years. All in all, this will require adding about 900 support spaces in Europe and 700 in CONUS.

In the Reserve Components, the combat force structure will change slightly when we form the 29th Light Infantry Division by consolidating existing, smaller units. The heavy divisions are converting to a modified Division 86 configuration; and the 35th Mechanized Division, formed in FY 1984, will be fleshed out by consolidating three separate brigades. Two additional brigades from the current force will be designated to round out active divisions, and the tactical support structure will increase by 6,100 spaces.

The Army units available to the U.S. Central Command (USCENTCOM) will increase in FY 1986 and the years following. When the 9th Division completes its conversion in FY 1986 to its new HTMD configuration, the readiness of those forces will increase markedly. The 6,100 tactical support spaces to be added to Reserve Component units will increase the ability of our land forces to support USCENTCOM without drawing down on forces needed for Europe. The major improvements in the units available to the Command will be readiness related, a result of increased manning, additional modern equipment, and increased participation in exercises.

b. Readiness

The combat readiness of our land forces continues to climb. Their ranks are filled with first-rate people. We are giving them tougher and more realistic training, and they are getting more up-to-date equipment and more ample stocks of supplies.

The quality of enlistees in both the Army and Marine Corps is higher than ever. In FY 1984, more than 90 percent of the men and women who enlisted for the first time held high school diplomas. The readiness of Army Reserve Component units rose from FY 1983 to FY 1984 with the addition of about 12,700 full-time support personnel. These individuals assist in training, logistics, and mobilization planning, and help maintain the modern new equipment entering the inventory. The effectiveness of Army combat units is being enhanced by the continued expansion of the New Manning System, under which company-sized units undergo initial training and then remain together for a full three years. By the end of FY 1985, we plan to have formed 97 such units. Unit cohesion and esprit are further improved by linking battalions under a single regimental flag and affiliating soldiers with a single regiment throughout their careers.

The FY 1986 program builds upon our progress of the past four years in improving the scope and quality of training for both active and reserve units. Under an expanded flying-hour program, Army aviators can expect to log more than 20 hours flying time per month by FY 1990. Tank crew proficiency will continue to improve with the funding of "conduct of fire" trainers and the acquisition of training devices that make use of advanced video technology. Other Army initiatives include increased automation at the National Training Center, the continuation of 28 full battalion rotations through the Center each year, and additional training sessions for the reserves.

The Marine Corps continues to emphasize training for amphibious landings and subsequent operations ashore. Ten live-fire, combined-arms exercises are conducted annually in the high desert at the Marine Corps Air-Ground Combat Center at Twenty-Nine Palms, California. Numerous amphibious exercises and other training programs routinely conducted both at home and abroad provide additional opportunities for Marine units to practice their skills.

The readiness of our land forces is also benefitting from the more reliable, easier-to-maintain equipment entering the inventory. To keep these items in peak operating condition, the Army has substantially increased its budget for spare parts and depot repair work. Funding for peacetime spares will rise substantially from FY 1985 to FY 1986, while depot repair funding will also grow. Spending in these areas is of great importance, since it yields the most cost-effective improvements in materiel readiness.

c. Sustainability

The sustainability, or staying power, of our forces is a function of a number of factors, including the amount of materiel on hand to replace items lost or consumed in combat, the availability of trained personnel to replace wartime casualties, the size of the support forces, and the amount of host nation support available.[2] We are building up our inventories of war reserve materiel toward prudent stockage objectives. Funding for Army and Marine Corps munitions (for both war reserves and training) will rise from $6.0 billion in FY 1985 to $6.4 billion in FY 1986. We are continuing to buy and preposition major items of equipment that would be needed to replace combat losses, and we are expanding our stocks of spare parts and other secondary items needed to keep that equipment functioning on the battlefield. We intend to reach our stockage objectives for those items by FY 1990.

The sustainability of Army and Marine Corps forces also depends on the size and quality of the Reserve Components (RC) and on the surge capacity of the training base. In FY 1986, the Marine Corps Reserve will increase its combined end strength to 43,900, while enhancing its combat capability with the introduction of M198 155mm towed howitzers. The capability of the Army Reserve Components will be enhanced with the addition of about 10,000 full-time support personnel, the infusion of more modern equipment into the inventory, and the provision of more intensive training for reserve units. In FY 1985, RC units will receive more than 10,000 new pieces of equipment -- including M1 tanks and Bradley Fighting Vehicles -- costing some $1.4 billion.

We also are increasing the sustainability of our land forces by building up the support structure and by pursuing additional host nation support agreements.

d. Modernization

The FY 1986-90 program continues a major, and long-overdue, modernization of the land forces. Obsolete systems are being replaced with up-to-date equipment that will enable our forces to perform effectively against a numerically superior, and steadily improving, opponent. Existing systems are being upgraded to enhance their performance on the modern battlefield. Looking ahead to the future, emerging technologies are being applied to the development of new generations of weapons that promise even more significant gains in combat capability.

(1) Close Combat

Our land forces are well on the road to rebuilding their capability to counter a heavily armored opponent in close combat. The new weapons and equipment now entering the inventory will boost the firepower of our antiarmor forces, while providing them greater tactical mobility and better protection from enemy fire.

---

[2] The term "host nation support" refers to the combat support and combat service support that allied countries have agreed to provide U.S. forces who may be called upon to fight on their territory.

M1 Abrams Tank -- The M1 tank's superior agility, advanced fire control system, and modern armor will make it an effective and survivable counter to Soviet armored forces through the 1990s and beyond. The 60-ton M1 can shoot on the move, delivering highly accurate and lethal fire in day or night. Its 1,500-horsepower turbine engine and improved suspension system enable it to travel at speeds of up to 45 miles per hour, reducing its exposure to enemy fire. Since its fielding in Europe, the M1 has enabled U.S. Army units to achieve consistently high scores in NATO tank gunnery competitions. The planned production rate of 70 units per month will allow the Army to reach its goal of fielding 7,467 M1s by the early 1990s. In late FY 1985, we plan to begin fielding an improved version of the tank (designated M1A1) equipped with a 120mm gun. More than half of the M1 force will eventually carry this larger gun.

Bradley Fighting Vehicle (BFV) -- The BFV provides mechanized infantry and armored cavalry forces with tactical mobility equivalent to that afforded by the M1 tank, while greatly improving their firepower. The BFV would accompany the M1 in battle, its TOW antiarmor missiles providing the punch needed to complement the M1 in knocking out enemy armored forces. By the end of FY 1985, the Army will have contracted for nearly 3,000 of these vehicles. By FY 1987, the production rate will increase to 75 units per month, allowing the Army to achieve its acquisition objective of 6,882 BFVs by the early 1990s.

Assault Amphibian Vehicle (LVT7) -- The LVT7 is a lightly armored vehicle designed to transport Marine forces from ship to shore in amphibious assaults.[3] On the ground, it provides an essential measure of tactical mobility and protection for infantry units. By the end of FY 1986, the Corps will have 1,317 of these vehicles -- all in the improved LVT7A1 configuration. Of that number, 333 will be new vehicles and the remaining 984 rebuilt LVT7s.

Light Armored Vehicle (LAV) -- The LAV will increase the ground mobility, survivability, and firepower of Marine Corps infantry units. The vehicle will be produced in several versions, designed for use in antiarmor, direct and indirect fire, command and control, and recovery operations. The basic vehicle will carry a 25mm cannon. By the end of FY 1985, the Corps will have received 758 LAVs, satisfying its initial acquisition objective.

TOW Missile System -- The Army and Marine Corps are continuing to build their inventories of TOW 2 antitank missiles. This weapon, incorporating an improved warhead and guidance system, will give their antiarmor forces a means of defeating technologically advanced armored systems.

---

[3] A lightly armored vehicle protects its occupants from small-caliber weapons fire and fragments from exploding artillery projectiles, grenades, and other munitions.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
M1 Tank				
Development:				
$ Millions	58.9	52.8	3.9	12.8
Procurement:				
Quantity	840	840	840	840
$ Millions	1,827.4	1,882.0	2,285.7	2,337.1
BFV				
Development:				
$ Millions	26.5	14.3	2.2	—
Procurement:				
Quantity	600	655	716	900
$ Millions	909.0	1,109.0	1,236.2	1,398.1
LVT7				
Procurement:				
Quantity[a]	569	248	—	—
$ Millions	219.6	107.2	0.2	—
LAV				
Development:				
$ Millions	10.1	11.6	16.8	—
Procurement:				
Quantity[b]	236	292	—	
$ Millions	171.5	249.7	2.9	0.6
TOW Missile[c]				
Development:				
$ Millions	4.8	9.9	11.8	6.6
Procurement:				
Quantity	20,200	14,355	24,882	21,133
$ Millions	215.5	252.8	299.2	288.7

---

[a] Includes new and rebuilt vehicles.

[b] Includes the basic vehicle and variants.

[c] Includes Army and Marine Corps funding.

(2) Land Forces Aviation

(a) Helicopters

The Army and Marine Corps maintain a versatile fleet of helicopters to support their combined-arms teams. The missions of these aircraft range from detecting and engaging enemy armored formations to transporting troops and equipment within combat theaters. Many of the systems now in service are aging and in need of replacement; others must be upgraded if they are to cope successfully with an evolving threat. Over the next five years, we will be continuing a major modernization of the fleet, designed to enhance the firepower of the attack component, add lift capacity in the assault-support elements, and improve survivability forcewide.

Attack Helicopters -- The AH-64 Apache will add substantially to the antiarmor capability of Army divisions. Equipped with the Hellfire missile system, the helicopter will be able to operate during day or night and in all kinds of weather, anywhere in the world. The Army took delivery of its first eight Apaches in FY 1984.

In FY 1986, the Marine Corps will receive the first of 44 AH-1T Super Cobra helicopters it is adding to the fleet. These aircraft will help relieve a serious shortfall in the attack inventory that has resulted from the reduced pace of modernization in the the 1970s.[4] The new aircraft will be powered by improved engines and carry a mix of Hellfire air-to-surface missiles and Sidewinder air-to-air missiles. The 46 AH-1Ts operated by the Fleet Marine Force also are slated to receive the new engines; they are now being fitted with the missile systems.

Assault-Support Helicopters -- To improve the tactical mobility of its forces, the Army is fielding new UH-60 Blackhawk helicopters and modifying its existing fleet of CH-47 Chinooks. A larger, more agile, and less vulnerable aircraft than the UH-1 (Huey) it replaces, the Blackhawk is able to deliver 50 percent more cargo and troops over greater distances at higher airspeeds, providing commanders added flexibility in employing their troops. The superior versatility and survivability of this aircraft were demonstrated during the rescue operation in Grenada. When deliveries of its external stores support system begin in January 1986, the Blackhawk will be able to deploy to virtually any area of the world without having to stop to refuel. In the medium-lift category, the CH-47D modernization program will increase that helicopter's lift capacity by approximately 60 percent, while improving its overall reliability and maintainability and reducing its vulnerability to enemy fire.

The Marine Corps has two programs under way to modernize its inventory of assault-support helicopters. It is acquiring additional heavy-lift capacity by continuing procurement of the three-engine CH-53E Super Stallion, the free world's largest helicopter. That aircraft, along with the JVX (discussed in the next section), is key to the new concept the Corps is developing for launching amphibious assaults from points beyond the horizon. (A detailed explanation of that concept is provided in the Naval Forces chapter.)

---

[4] Two of the Marine Corps' three active attack helicopter squadrons are a total of five aircraft short of their authorized strength. The third squadron is equipped with Vietnam-era AH-1Js, which have no antiarmor capability.

The CH-46E -- the workhorse of the medium-lift fleet -- is undergoing a major upgrade to improve its safety, reliability, and maintainability. That program will enable the fleet to remain in service into the 1990s.

Scout Helicopters -- The OH-58D AHIP will provide the Army with a more agile and survivable scout helicopter. Its primary mission will be to find and designate targets for attack helicopters and artillery units. Equipped with a mast-mounted sight containing advanced sensors and optical systems and a laser rangefinder/designator, the helicopter will be able to operate around the clock and in almost all types of weather. The first OH-58Ds will be fielded in FY 1986.

(b) Developmental Aircraft

Revolutionary advances in aviation technology are paving the way for entirely new generations of military aircraft. In one related development effort, the Navy and Air Force are designing a tilt-rotor plane that will have the lift and versatility of a helicopter but the speed, range, and survivability of a fixed-wing plane. Called the JVX (for Joint Services Advanced Vertical-Lift Aircraft), the aircraft would be used by the Marine Corps to ferry troops and equipment from ship to shore in an amphibious assault, by the Air Force for special operations, and by the Navy for search-and-rescue missions. The schedule calls for full-scale development to begin in May of this year and for the Marine Corps to take delivery of the first production model in FY 1991. The Army and Air Force intend to begin procuring their versions of the aircraft in the early 1990s.

The Army is developing a new family of light rotorcraft (LHX) to replace its aging fleets of AH-1, OH-58, and OH-6 helicopters, and to take over for the UH-1 in units not slated to receive UH-60s. The aircraft will be produced in two versions, one designed for utility missions and the other for use in the scout or attack role. Initial deliveries are expected in the early 1990s.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
AH-64				
Development:				
$ Millions	21.4	27.7	17.5	—
Procurement:				
Quantity	112	144	144	144
$ Millions	1,360.4	1,418.8	1,376.3	1,318.4
AH-1T				
Procurement:				
Quantity	—	22	22	—
$ Millions	17.8	206.6	218.5	41.6

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Hellfire[a]				
Development:				
$ Millions	4.3	2.9	6.2	6.3
Procurement:				
Quantity	4,870	5,780	7,880	7,960
$ Millions	235.5	252.7	308.5	303.6
UH-60				
Development:				
$ Millions	15.0	–	–	–
Procurement:				
Quantity	84	86	78	78
$ Millions	431.5	476.6	486.2	394.5
CH-47D				
Procurement:				
$ Millions	357.9	482.9	396.6	328.7
CH-53E				
Procurement:				
Quantity	11	8	4	10
$ Millions[b]	187.8	168.2	101.0	171.2
JVX				
Development:				
$ Millions	86.7	187.5	608.6	493.0
OH-58D				
Procurement:				
$ Millions	199.5	231.1	260.6	307.7
LHX				
Development:				
$ Millions	1.0	72.7	146.3	399.3

---

[a] Includes Army and Marine Corps funding.

[b] Includes the start-up costs for a multiyear procurement contract.

(3) Air Defense

Our land forces deploy a balanced mix of systems to defend against aircraft and missile attacks. Shorter-range (or "point defense") systems, such as Stinger and Chaparral missiles and antiaircraft guns, are designed primarily to protect troops and equipment near the front lines (e.g., forward command posts and maneuver units). Longer-range ("area defenses") systems, such as Patriot and Improved Hawk missiles, guard larger, more widely dispersed areas of the battlefield (e.g., corps command and control facilities and airfields). These weapons are supported and linked by a network of radar, command and control, and electronic warfare systems.

(a) Short-Range Systems

Stinger -- The Stinger is a shoulder-fired, infrared-guided missile that can be carried by a single soldier or marine. It is designed to defend against low-flying aircraft at relatively short ranges, and is being purchased jointly by the Army and Marine Corps to replace the aging Redeye. In FY 1984, an improved version of the missile, with increased resistance to enemy countermeasures, entered production. That system, called Stinger-Post, is scheduled for fielding in FY 1987.

Chaparral -- A short-range air defense missile deployed with most active Army divisions, the Chaparral will soon be consolidated at the corps level. To enable the missile to engage targets at night and in poor weather, we are fitting it with a forward-looking infrared radar (FLIR) sensor. For the future, we are developing an improved guidance system that will be highly resistant to infrared countermeasures. With these modifications, the Chaparral will be able to remain in service through the end of the century.

Short-Range Air Defense Command and Control (SHORAD C^2) -- To take maximum advantage of the capabilities offered by its forward-area air defense systems, the Army is developing a new automated command and control system for use at the division and corps levels. Called SHORAD C^2, the system will be able to assign priorities among multiple targets and transmit engagement instructions to Chaparral and Stinger operators. By improving coordination among air defense units, the SHORAD C^2 system will greatly increase the effectiveness of the Army's entire air defense network.

(b) Long-Range Systems

Patriot -- The Patriot is the Army's advanced all-altitude air defense missile. The system's multifunction, phased-array radar enables several missiles to be directed to their targets simultaneously, even under jamming conditions. A state-of-the-art system, the Patriot will be highly effective against any enemy aircraft likely to be encountered through the end of the century. In December 1984, we began fielding it with our Army units in Europe, where it will form the backbone of NATO's future air defense system. Several allied nations are also considering procuring Patriot missiles for their forces.

Improved Hawk (I-Hawk) -- The Army and Marine Corps are modernizing their inventories of Hawk antiaircraft missiles. The upgraded version incorporates a new motor and an improved guidance system that will enable multiple targets to be engaged simultaneously. Other features being added will enable the system to cope with the projected electronic countermeasures threat of the 1990s, while making it easier to maintain on the battlefield.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Stinger/ Stinger-Post				
Development:				
$ Millions	—	5.0	18.6	3.2
Procurement:				
Quantity	1,956	3,216	4,239	9,269
$ Millions	182.7	279.0	366.0	711.9
Chaparral				
Development:				
$ Millions	20.2	17.5	17.7	—
Procurement:				
Quantity	—	12	300	1,095
$ Millions	—	32.0	109.0	154.0
SHORAD C^2				
Development:				
$ Millions	34.1	50.4	33.0	57.8
Patriot				
Development:				
$ Millions	78.3	61.1	53.1	38.8
Procurement:				
Quantity[a]	440/12	440/12	585/12	700/12
$ Millions	963.5	1,045.8	1,063.9	1,055.2
Improved Hawk				
Development:				
$ Millions	32.6	18.8	5.2	9.6
Procurement:				
Quantity	400	500	550	550
$ Millions	97.0	126.1	140.1	156.6

[a] Includes fire units and missiles.

(4) Artillery Fire Support

To offset the Warsaw Pact's numerical superiority and near technological parity with NATO in ground maneuver forces, we must improve the ability of our forces to detect advancing enemy formations and mass large volumes of accurate, effective firepower against them. To that end, we are upgrading the target acquisition and fire control capabilities of our weapons systems, developing new munitions with improved laser-homing capabilities, and increasing the overall sustainability of our fire support forces on the modern battlefield.

Target Acquisition -- The Army is working on two new systems that will provide long-range targeting support for its missile and artillery batteries. The Joint Surveillance Target Attack Radar System (Joint STARS), described in more detail in the Deep Interdiction section, will be able to locate and track moving targets at extended ranges. The Remotely Piloted Vehicle (RPV), a drone aircraft, will be used to locate and designate targets for laser-guided weapons and to provide firing data for artillery units.

Fire Control -- The Advanced Field Artillery Tactical Data System (AFATDS), a new-generation automated fire control system being developed by the Army, will increase the efficiency and targeting capacity of its firing batteries. Entering procurement over the next two years will be the Army's Battery Computer System (BCS), a small computer designed to provide firing data for individual guns. The BCS includes an automated data system that will provide timely and accurate meteorological information to artillery units.

Laser Designators -- Laser designators are used to illuminate and designate targets for laser-guided bombs, artillery munitions (Copperhead), and missiles (Hellfire). They help provide the "precision" for precision-guided munitions (PGMs). The FY 1986 budget supports continued procurement of Ground Laser Locator Designators (GLLDs) for the Army. The Marine Corp will complete procurement of the Modular Universal Laser Equipment (MULE) in FY 1985.

Weapons and Support Systems -- The Multiple-Launch Rocket System (MLRS) is a high-rate-of-fire weapon being procured for general-support artillery units. It can be used to supplement cannon artillery fire or to strike targets, such as enemy artillery and air defense systems, beyond cannon range. A single launcher can fire its load of 12 rockets in less than a minute, covering an area the size of six football fields with approximately 7,700 grenade-like submunitions effective against both personnel and lightly armored targets. The Army began deploying the MLRS in FY 1983 and is using multiyear procurement authority for its continued production. At the same time, as part of a multinational program with Germany, France, and Great Britain, the Army is working on a warhead for the system that could dispense terminally guided submunitions.

Over the coming years, the Army will continue modernizing its inventory of 155mm and 8-inch howitzers. Competing budgetary priorities will, however, force it to terminate production of the M109A2 155mm howitzer with the FY 1986 order.

Later this year, the Army will take delivery of its first Field Artillery Ammunition Support Vehicles (FAASVs). These highly mobile tracked vehicles will provide armor protection for ammunition, and carry equipment to prepare and supply ammunition for howitzers. They will be assigned to self-propelled artillery units in Europe.

Ammunition -- The Army and Marine Corps are continuing to build their inventories of improved conventional munitions, 155mm howitzer-delivered scatterable mines, and 155mm laser-guided Copperhead artillery projectiles. A large number of these items have been earmarked for the war reserve stocks.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
RPV				
Development:				
$ Millions	126.2	95.7	51.1	29.4
Procurement:				
$ Millions	–	–	150.7	305.3
AFATDS				
Development:				
$ Millions	25.1	32.9	35.6	46.2
BCS				
Procurement:				
Quantity[a]	146	162	255	66
$ Millions	31.2	32.7	50.0	11.6
GLLD				
Procurement:				
Quantity	200	208	180	240
$ Millions	45.6	56.1	45.1	8.5
MULE				
Development:				
$ Millions	–	–	–	–
Procurement:				
Quantity	134	115	–	–
$ Millions	43.3	38.0	–	–
MLRS				
Development:				
$ Millions	3.5	1.9	–	0.6
Procurement:				
Quantity[b]	36,000/76	50,472/44	72,000/44	72,000/ –
$ Millions	545.4	561.9	570.5	461.5
M109A2				
Procurement:				
Quantity	120	70	–	–
$ Millions	87.2	52.4	–	–
FAASV				
Procurement:				
Quantity	120	170	212	190
$ Millions	59.1	78.2	101.5	98.5

---

[a] Includes Army and Marine Corps funding.

[b] Includes rockets and launchers.

(5) Deep Interdiction

Emerging technologies are providing our land forces with radically new techniques for defeating armored attacks. Moving targets deep behind enemy lines will be located and tracked by long-range detection systems. Intelligence and fire control information from multiple sources will be rapidly processed by computers and distributed to tactical commanders for targeting decisions. Targets will be attacked by aircraft and missiles delivering a variety of munitions, including terminally guided submunitions. In this way, our forces will be able to carry the fight to the enemy and overcome the advantage their opponents hold in numbers of troops and equipment.

Joint Surveillance and Target Attack Radar System (Joint STARS) -- This airborne detection system, being developed jointly by the Army and the Air Force, will be able to monitor moving targets well before they reach the main battlefield. Drawing on the information it provides, our forces will be able to use their weapons systems to attack targets deep behind enemy lines.

Joint Tactical Fusion Program (JTFP) -- This automated system, under development by the Army and the Air Force, will process, analyze, and distribute intelligence reports gathered from multiple sources. The information will assist battlefield commanders in assessing the status and disposition of enemy forces and selected targets. In the future, we hope to develop a more advanced fusion system that will be able to provide direct, real-time intelligence.

Standoff Tactical Missile -- This missile will be able to dispense terminally guided submunitions against targets deep behind enemy lines. Designed to exploit the long-range vision of our new target acquisition and guidance systems, the missile will enable attacks to be directed against enemy follow-on forces, air defense systems, tactical ballistic missile launchers, and command and control facilities.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Joint STARS[a]				
Development: $ Millions	109.0	96.7	304.0	239.3
Standoff Tactical Missile				
Development: $ Millions	50.2	76.4	154.8	207.0

---

[a] Includes Army and Air Force funding.

(6) Tactical Wheeled Vehicles

The Army and Marine Corps are continuing to improve the ground mobility of their forces by upgrading their overage, over-mileage fleets of tactical wheeled vehicles. As part of that effort, they will begin fielding the High Mobility Multipurpose Wheeled Vehicle

(HMMWV) in FY 1985. This versatile 5/4-ton vehicle will be used to replace a portion of the jeep inventory and other vehicles in the 1/4- to 5/4-ton range.

In the 10-ton category, the Army is placing high priority on procuring the Heavy Expanded Mobility Tactical Truck (HEMTT). The truck is being produced in five body styles for use by combat and combat support units. The Marine Corps is procuring a variant of the HEMTT, called the Logistics Vehicle System (LVS), for its combat support forces. The LVS comes with four interchangeable rear-body units. By integrating the two programs, we have been able to accelerate the introduction of the Marine Corps' trucks by more than a year. Army units began receiving their HEMTTs in FY 1982; the Marine Corps version will be fielded later this year.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
HMMWV				
Procurement:				
Quantity	8,955	14,751	18,215	15,065
$ Millions	216.1	390.1	451.5	396.6
HEMTT				
Procurement:				
Quantity	1,209	1,194	770	955
$ Millions	201.9	214.9	134.8	168.0
LVS				
Procurement:				
Quantity	148	354	360	444

(7) Tactical Command, Control, and Communications and Electronic Warfare

In equipping our land forces, we seek to provide them the responsiveness and flexibility they need to defeat a numerically superior opponent. But it is not enough merely to provide our forces with modern weapons systems; we must also be able to direct their operations efficiently in the heat of battle. To that end, we are developing a variety of command, control, communications, and intelligence (C^3I) systems that will enable tactical commanders to locate and gather information about enemy forces; assist them in analyzing that information; provide jam-resistant, secure communications links to firing units; and allow our forces, through the use of electronic warfare, to disrupt enemy communications and intelligence gathering.

Ground Mobile Forces (GMF) Satellite Communications -- The GMF will provide reliable, jam-resistant communications support for battlefield commanders. By using satellite communications to link headquarters in the field, we provide commanders with a means of transmitting orders and intelligence information over long distances. The Army and Marine Corps will procure several hundred GMF terminals with supporting equipment.

Single-Channel Ground and Airborne System VHF (SINCGARS-V) -- This program will provide secure, jam-resistant, very high frequency (VHF) radios to replace the 20-year-old equipment now in use with combat battalions and companies. The Army will begin fielding its new radios in FY 1986, and the Marine Corps will follow in FY 1987.

Army Data Distribution System (ADDS) -- A digital communications system, the ADDS will provide secure, jam-resistant communications links for command and control, intelligence, air defense, fire support, electronic warfare, and other computer systems. The FY 1986 budget provides initial procurement funds, working toward a planned deployment date in FY 1988.

Maneuver Control System (MCS) -- This advanced command and control system will provide tactical commanders with information on the status and disposition of their forces and those of the opponent. The system will consist of a network of small computers adapted to military use. A prototype version has been fielded in Europe, where it is undergoing further development with the direct participation of the eventual users.

Mobile Subscriber Equipment (MSE) -- This system will provide an automatic, secure, mobile telephone service -- both voice and data -- for tactical users at the corps and division level. Initial deliveries will begin in FY 1987.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
GMF				
Procurement:				
$ Millions	183.7	210.8	346.9	293.9
SINCGARS-V				
Development:				
$ Millions	10.5	10.8	15.2	8.5
Procurement:				
Quantity	1,325	10,600	16,400	17,100
$ Millions	50.7	156.5	250.8	321.7
ADDS				
Development:				
$ Millions	22.9	23.0	38.1	15.7
Procurement:				
$ Millions	—	—	31.8	131.1
MCS				
Development:				
$ Millions	12.4	21.9	8.6	8.7
Procurement:				
$ Millions	26.3	27.9	72.3	72.5
MSE				
Development:				
$ Millions	0.6	—	—	—
Procurement:				
$ Millions	—	63.3	335.3	786.3

Electronic Warfare (EW) -- To increase its ability to disrupt enemy communications, the Army is procuring additional tactical jamming systems (MLQ-34 and TLQ-17A), hand-emplaced expendable jammers (EXJAM), and EH-60 Quick Fix helicopters. Tactical intelligence systems are being modernized through continued production of the Trailblazer (TSQ-114A) system, resumed production of the Teampack (MSQ-103) system, and upgrades to the Quick Look and Improved Guardrail V systems.

Communications Security (COMSEC) -- The Army is procuring several types of modern COMSEC equipment. These systems provide secure communications links over which commanders can transmit orders and intelligence information without giving the enemy an opportunity to eavesdrop.

3. Conclusion

We have made considerable progress over the past four years in revitalizing the combat strength of the Army and Marine Corps. The FY 1986-90 program will bring further gains, moving us closer to our goal of creating:

- A credible and efficient force, equally capable of peacetime deterrence and wartime success;
- A modern, balanced, and strategically mobile force armed with advanced weaponry and maintained at a high level of readiness; and
- An active force capable of being rapidly expanded by the Reserve Components and prepared for sustained combat operations anywhere that conflict might threaten.

B. NAVAL FORCES

1. Introduction

a. Maritime Missions

The United States has traditionally maintained a strong Navy to preserve the freedom of the seas and to support the global commitments associated with its forward defense strategy. In peacetime, naval forces are routinely deployed overseas as a means of reassuring allies and deterring potential adversaries. In times of crisis, their inherent mobility permits them to be redeployed to world trouble spots rapidly without relying heavily on foreign bases or special transit rights. Deployed to areas of vital interest to the United States and its overseas allies, naval forces can remain on station for extended periods, ready to project power ashore should deterrence fail and the circumstances warrant American military action. If need be, they can apply power rapidly and flexibly in support of such key objectives as protecting friendly shipping from air or sea attacks, depriving enemy forces of access to strategic ocean areas, and projecting power against enemy targets ashore.

Taken together, these capabilities make our naval forces a powerful instrument for peace and stability in an often troubled world. Their importance to Western security and world peace requires that we take steps to maintain their strength in future years.

b. Composition of U.S. Maritime Forces

The instruments of our naval power are many and varied. Carrier battle groups, perhaps the most visible symbol of America's maritime capability, support our foreign policy through a series of routine overseas deployments. Should an emerging crisis require action, our modern multimission aircraft carriers, backed by a mix of surface combatants, attack submarines, and logistical support ships, can execute the full range of naval missions. They can project power against targets on land and at sea. They can establish air defense umbrellas in the skies above naval task forces. And they can undertake antisubmarine operations.

Our Iowa-class battleships, now being reactivated and armed with Tomahawk and Harpoon cruise missiles, provide a potent supplement to the carrier force. In addition to their long-range missile strike capabilities, these ships substantially increase our ability to provide naval gunfire support for amphibious assaults. The first battleship to be refurbished, the USS NEW JERSEY, rejoined the fleet in FY 1983 and has already seen extensive service in the western Pacific, Central America, and the eastern Mediterranean. The second ship, the USS IOWA, rejoined the fleet last year and has recently returned from operations off Central America.

Amphibious assault forces provide another highly visible and flexible means of supporting our national security objectives. These highly mobile forces give us a means of rapidly deploying Marine units to distant trouble spots with the equipment to fight their way across hostile territory, if necessary. In peacetime, amphibious forces are routinely deployed near regions of interest to us, providing a ready means to protect the safety and security of American citizens or to respond to other threats to our vital interests. The recent operations in Grenada and Lebanon provide clear testimony to the value of this capability.

Nuclear-powered attack submarines, though inherently a less visible component of the force structure, also contribute powerful warfighting and deterrent capabilities to the fleet. In addition to their traditional roles in operations against enemy surface ships and submarines, our attack submarines are now gaining the ability to strike land targets with highly accurate cruise missiles.

A final, but no less vital, element of the force structure is the diverse mix of support ships and mine warfare forces that serve the fleet in peacetime and in war. These units range in type from replenishment ships, which carry fuel, food, munitions, and other items that must constantly be resupplied, to repair ships and mine countermeasures ships and helicopters. These latter forces, which are designed for mine clearance operations, demonstrated their value last year, when we dispatched two detachments of mine countermeasures helicopters to the Red Sea in response to requests for assistance from the governments of Egypt and Saudi Arabia.

c. Countering the Soviet Threat

To maintain naval forces capable of fulfilling the maritime missions mandated by our forward defense strategy, we must pay close attention to the threat posed by increasingly powerful Soviet naval forces. That threat has grown alarmingly in recent years in the wake of a sustained Soviet military buildup.

Particularly worrisome have been the advances in the Soviet submarine fleet. This massive underseas combat force -- at more than 370 boats, by far the world's largest -- has improved greatly in quality over the past decade and a half. The 1970s saw the introduction of several new submarine types, including the nuclear-powered Alfa and Victor III and the diesel-electric Tango. Classes introduced during the 1980s have yielded substantial additional improvements across the full range of submarine capabilities. For example, the 13,000-ton Oscar, armed with 24 SS-N-19 long-range antiship missiles, has significantly increased the scope and magnitude of the threat to our carrier battle groups and other surface forces. Still other new classes now being delivered to the fleet, such as the 9,700-ton Mike and the 7,300-ton Sierra, can be expected to yield further improvements in Soviet submarine capabilities in future years. These include increases in size, which provide more space for weapons, and enhancements in speed and sound quieting, which make the submarines more difficult to detect and engage.

Our naval forces also face a serious threat from the air. Backfire bombers armed with long-range, supersonic AS-4 air-to-surface missiles are the greatest menace. There are now about 250 Backfires in the Soviet inventory, more than 100 of which are assigned to Soviet naval aviation and dedicated to antiship missions. With an unrefueled combat radius of about 3,000 miles, the Backfire can threaten our ships over a large portion of the world's ocean area. In addition, the Bear bomber, with a combat radius of more than 5,000 miles, is being reconfigured to carry the AS-4 missile. A new variant of that aircraft (the Bear H), configured for carrying air-launched cruise missiles (ALCM), is in production. Moreover, the Soviets are flight testing an entirely new intercontinental bomber, the Blackjack, which could be used for maritime strikes.

The Soviets are also building a new generation of surface combatants. In recent years, they have introduced the 28,000-ton Kirov nuclear-powered guided missile cruiser, the Slava guided missile cruiser, and the Udaloy and Sovremennyy guided missile destroyers. Moreover, they are now building a nuclear-powered aircraft carrier that we believe will be large enough to operate high-performance conventional takeoff and landing aircraft. As a result, the next decade will see the Soviets gain the ability to conduct air defense and air-strike operations in regions outside the reach of their land-based tactical aircraft.

d. Program Goals for Naval Forces

The defense program for FY 1986-90 carries forward our effort to build a modern 600-ship Navy, ready for combat and able to sustain itself in battle. The program is designed to correct remaining deficiencies in the fleet and to add the forces needed to support our worldwide commitments and national interests. As a first priority, we have sought to improve the fleet's day-to-day readiness and combat sustainability. Much progress has been achieved, particularly in the recruitment and retention of the high-quality personnel needed to man a growing and increasingly sophisticated Navy. To sustain that progress, we must continue to receive the strong support of the Congress for our readiness and sustainability initiatives. Those programs are described in detail in the Readiness and Sustainability chapter.

We are also moving steadily closer to our goal of an expanded fleet of 600 deployable battle force ships, including 15 deployable carriers, 100 nuclear-powered attack submarines, a one-third increase in amphibious lift capacity, and expanded support forces. As Table III.B.1 shows, we expect the fleet to have grown to 555 ships by the end of FY 1986, up from 479 at the end of FY 1980.

Table III.B.1

Deployable Battle Forces (End Fiscal Year)

	FY 1980	FY 1985	FY 1986
Ballistic Missile Submarines[a]	40	37	38
Strategic Support Ships	8	6	6
Aircraft Carriers (Deployable)	13	13	13
Battleships	0	2	3
Cruisers	26	30	32
Destroyers	81	69	69
Frigates	71	110	112
Nuclear Attack Submarines	74	96	95
Diesel Attack Submarines	5	4	4
Amphibious Ships	66	61	62
Patrol Combatants	3	6	6
Mine Warfare Ships	3	3	7
Mobile Logistics Ships	68	74	75
Support Ships	21	31	33
Total	**479**	**542**	**555**

[a] See Chapter III.E for a discussion of SSBN retirements.

Between FY 1986 and the end of the decade, the fleet will continue to grow as new ships authorized in previous years are delivered to the Navy faster than older vessels are retired from service. By 1989, we expect to reach a force level of slightly more than 600 deployable battle force ships. Contributing to that growth will be 94 ships that have been authorized through FY 1985 but not yet delivered to the fleet (see Table III.B.2).

Table III.B.2

Ships Authorized But Not Delivered

Ballistic Missile Submarines	7
Aircraft Carriers	3
Battleships	1
Cruisers	14
Destroyers	1
Frigates	10
Nuclear Attack Submarines	18
Amphibious Ships	6
Mine Warfare Ships	10
Auxiliaries	24
Total	**94**

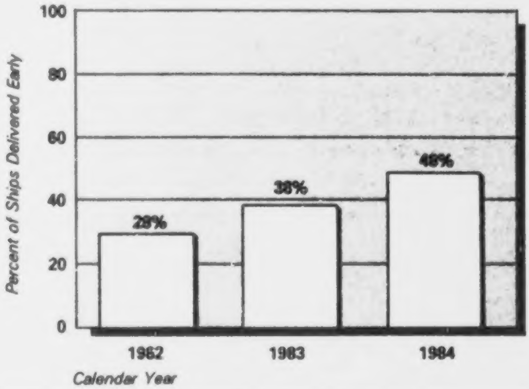
As part of the force expansion program, we are upgrading the Naval Reserve Force (NRF). By the end of FY 1986, we will have transferred 15 modern frigates of the FFG-7 and FF-1052 classes from the active fleet to the NRF, leading to an eventual total of 26 reserve frigates. The LAMPS MK I antisubmarine helicopters deployed with these ships are also being assigned to reserve squadrons. In addition, the NRF will man 8 of our 14 new MCM-1 mine countermeasures ships and all 17 MSH-1 mine-hunters.

The FY 1986-90 shipbuilding plan, summarized in Table III.B.3 at the end of this chapter, projects a steady rate of ship construction through the remainder of the decade, with about 21 ships scheduled for authorization each year. The plan is designed to sustain and modernize a 600-ship Navy as large numbers of vessels built during the 1960s reach retirement age in the 1990s. Special emphasis has been placed on the large number of guided missile destroyers and nuclear-powered attack submarines that will be needed to replace the many ships of these types scheduled to retire in the early 1990s. The shipbuilding plan also supports a selective expansion of the force in areas in which our individual goals have not been achieved, with particular emphasis on amphibious, mine warfare, and underway replenishment ships.

We are making every effort to buy these ships in an efficient and economic manner. Owing to the expanded use of competition and other improvements in contracting procedures, we have seen an improving trend in ship delivery schedules, as shown in Chart III.B.1.

Chart III.B.1

Improved Ship Delivery Trends



At the same time that we are expanding the fleet, we must upgrade its capabilities if it is to meet the challenges posed by increasingly sophisticated Soviet forces. The FY 1986-90 program therefore continues to pursue the four broad objectives we have set for modernizing and strengthening our general purpose naval forces:

-- Expanding and improving our power projection forces, including aircraft carrier battle groups, amphibious assault ships, reactivated battleships, and cruise missile forces;

-- Strengthening our ability to secure vital sea-lanes and defend naval task forces against bomber and missile attacks;

-- Retaining our crucial edge in antisubmarine warfare capabilities in the face of major improvements in the Soviet submarine force; and

-- Expanding and modernizing our support and mine warfare forces.

Over the next five years, we will also continue to modernize our force of ballistic missile submarines, adding new Trident submarines and developing the Trident II (D-5) missile. These programs are described in the Nuclear Forces chapter.

2. FY 1986-90 Programs

a. Power Projection Forces

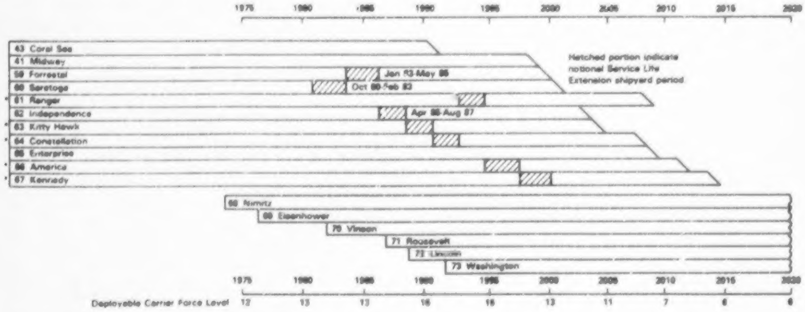
We have placed particular emphasis on strengthening our power projection forces. These forces support our national interests around the globe in peacetime and during crises, while providing our commanders the wherewithal to take the battle to the enemy in wartime. We are expanding the aircraft carrier force to 15 deployable carriers. The amphibious fleet is undergoing a major upgrade. We are refurbishing and returning to service our Iowa-class battleships. And we are upgrading the strike capabilities of our surface combatants, attack submarines, and aircraft by arming them with Harpoon antiship missiles and Tomahawk cruise missiles, many of the latter in new vertical launch systems.

(1) Aircraft Carrier Forces

Our program to expand the carrier force to 15 deployable carriers by the end of the decade remains on track. Our thirteenth deployable carrier, the USS CARL VINSON (CVN-70), joined the fleet in FY 1982. In early FY 1987, our fourteenth carrier, the USS THEODORE ROOSEVELT (CVN-71), launched in 1984, will enter service. At the end of the decade, when the USS ABRAHAM LINCOLN (CVN-72), one of the two carriers authorized in FY 1983, joins the fleet, we will reach our goal of 15 deployable carriers. In early FY 1992, when the USS GEORGE WASHINGTON (CVN-73), the other carrier authorized in FY 1983, is delivered, the Navy will restructure its force of operating and training carriers, while retaining 15 deployable units. A number of options for maintaining a carrier training capability are under review. One involves the removal of the USS CORAL SEA from the deployable force for use as a training carrier. This option is depicted in the expansion plan outlined in Chart III.B.2.

Chart III.B.2

Major Milestones of the Carrier Expansion Plan



*Tentative SLEP schedule under consideration for these ships

Under current plans, the Navy will not need to procure any more new carriers until the early 1990s. At that time, to sustain a force of 15 deployable carriers, we should examine a program to replace the USS MIDWAY, as well as the Forrestal-class carriers now undergoing renovation.

In the meantime, we must continue to prolong the operating life of our older carriers. Under the Service Life Extension Program (SLEP), we are adding 15 years to the original 30-year service lives of eight existing large-deck carriers. While each must be removed from the deployable force during the roughly two-year duration of its overhaul, we have found the program to be a very economical alternative to new carrier construction. Work on the first carrier was completed two years ago, and the second ship, the USS FORRESTAL, will complete its renovation this summer. Funding for the third ship, the USS INDEPENDENCE, was authorized in FY 1985. The FY 1986 budget funds long-lead items for the fourth ship, the USS KITTY HAWK, which is scheduled to begin its overhaul in FY 1987. Due to the KITTY HAWK's excellent material condition, the projected scope of its SLEP has been reduced, with a substantial decrease in cost. The Navy will continue to examine the condition of its other unrenovated carriers to see if they, too, might be candidates for shorter, less expensive SLEPs.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Service Life Extension Program				
Modification:				
Quantity	–	1	–	1
$ Millions	116.0	742.3	156.8	521.9

(2) Amphibious Assault Forces

Our amphibious assault forces are undergoing a revitalization, reversing a long period of stagnation during the 1970s. Our goal is to achieve, by 1994, sufficient amphibious lift capacity to accommodate the assault echelons of a Marine Amphibious Force (MAF) and a Marine Amphibious Brigade (MAB). This will require a one-third increase over today's capacity. Three ship construction programs -- the LHD-1, the LSD-41, and the LSD-41 Follow-on -- support this effort.

Beyond the increase in lift capacity, our program seeks to achieve a capability for launching amphibious assaults from points over the horizon. This new assault concept is intended to reduce the vulnerability of amphibious ships and to generate greater uncertainty in the enemy's mind as to the location and timing of an assault, thereby maximizing its prospects of success. Key programs supporting this effort include the procurement of new, high-speed landing craft, air-cushion (LCAC) and CH-53E heavy-lift helicopters, along with the development of the JVX advanced vertical-lift aircraft. The latter two programs are discussed in the Land Forces chapter.

(a) LHD-1

The LHD-1 multipurpose amphibious assault ship program is the cornerstone of our plan to expand amphibious lift capacity. Similar in design to the LHA-1 amphibious assault ship, the 40,000-ton LHD-1 will provide space equivalent to that of the LHA-1 for transporting troops, vehicles, and cargo in an amphibious assault. But with a capacity to carry three LCACs and large numbers of helicopters, the ship will significantly enhance our ability to support over-the-horizon assaults. As a secondary mission, it could serve as a "convertible carrier" for V/STOL aircraft.

The lead ship in the program, the USS WASP, was authorized in FY 1984 and will join the fleet in FY 1989. The five-year shipbuilding plan provides for four more LHD-1 purchases, giving us a total of five of these ships by 1994. In FY 1986, we are requesting the second ship as part of a multiyear procurement package incorporating funding for the third and fourth units as well. This will result in a savings of some $820 million, while significantly accelerating the ships' deliveries.

Beyond the five ships needed by FY 1994 to support the MAF-plus-MAB lift goal, we ultimately plan to build a total of 10 or 11 LHD-1s. The additional ships will replace the seven LPH-class ships scheduled for retirement in the late 1990s.

(b) LSD-41

This year marks the entry into the fleet of the lead ship of the LSD-41 class, the USS WHIDBEY ISLAND. Six of these dock landing ships have been authorized through FY 1985, and the FY 1986 budget seeks funds for two more. This will give us a total of eight LSD-41s by 1994 -- enough, when combined with other ships in the amphibious program, to supply the 90 LCAC spots required by the MAF-plus-MAB objective.

(c) LSD-41 Follow-On

Following completion of the LSD-41 program, we plan to switch production to a variant design. The follow-on ship (previously designated "LPDX") will have essentially the same hull and engineering plant as the LSD-41, but it will trade two of that ship's four LCAC spots for substantially more cargo space (an area in which we face particularly severe shortfalls). The five-year shipbuilding plan includes six LSD-41 follow-on ships. We anticipate construction of additional units in future years to replace amphibious ships scheduled for retirement in the latter half of the 1990s.

(d) LPD-4 Service Life Extension

We plan to renovate our 11 1960s-vintage LPD-4 landing platform dock ships, giving them 10 to 15 additional years of service and postponing their retirement well beyond the turn of the century. This will ease a major block retirement problem facing the amphibious fleet, while supporting our goal of increasing overall lift capacity. The five-year program funds seven renovations, the first in FY 1988, a one-year delay imposed by tightened fiscal constraints.

(e) Landing Craft, Air Cushion (LCAC)

The LCAC program is the key to the new amphibious assault concept we are developing for the future. Designed to carry the combat and logistical vehicles of a Marine landing force from ship to shore at speeds in excess of 40 knots, the LCAC will enable our forces to launch assaults from many miles offshore. To support the landing requirements of a MAF and a MAB, we plan to buy at least 90 of these craft. Of the 21 authorized through FY 1985, one has already been delivered and is undergoing initial operational testing. Further tests are scheduled for this summer, after the next two craft are delivered; those tests will be conducted with the LSD-41. We are now forming an assault-craft unit to man the first six craft, which will be ready to begin operations with the fleet in the summer of

1986. The five-year program adds another 60 craft, at a steady rate of 12 per year.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
LHD-1				
Procurement:				
Quantity	1	—	1	—
$ Millions	1,365.7	39.2	1,507.2	381.7
LSD-41				
Procurement:				
Quantity	1	2	2	—
$ Millions	396.6	522.0	426.5	23.5
LSD-41 Follow-on				
Procurement:				
Quantity	—	—	—	—
$ Millions	—	—	—	23.6
LPD-4 SLEP				
Modernization:				
Quantity	—	—	—	—
$ Millions	—	15.0	—	80.5
LCAC				
Procurement:				
Quantity	6	9	12	12
$ Millions	162.0	251.1	316.2	312.5

(3) Battleship Forces

As part of our program to expand the power projection capabilities of the fleet, we are continuing the reactivation of our Iowa-class battleships. Armed with new Tomahawk and Harpoon missiles, these ships are capable of striking land or sea targets from points over the horizon. Their original 16-inch guns provide a much needed boost in naval gunfire support capability. To enhance the guns' firepower, we are developing new types of 16-inch ammunition, including submunition rounds that will be more effective against dispersed targets and extended-range rounds for covering inland targets. The first two battleships, the USS NEW JERSEY and the USS IOWA, have already rejoined the fleet, and the third, the USS MISSOURI, is undergoing its renovation. We are requesting advance funding in FY 1986 for the fourth ship, the USS WISCONSIN, whose reactivation is scheduled for FY 1987.

(4) Cruise Missile Forces

(a) Tomahawk

The Tomahawk cruise missile program represents a major effort to improve the firepower of our naval units and to distribute offensive striking power among a larger number of ships. This highly capable and versatile weapon can be launched from a variety of surface ships and submarines, and it has the range to reach enemy surface ships and shore targets beyond the horizon.

As is often the case with new weapons programs, the Tomahawk encountered various problems during initial tests. These are now being corrected, allowing us to move to higher production rates. We have therefore budgeted funds for 249 missiles in FY 1986, and for another 330 in FY 1987.

The antiship and nuclear land-attack versions of Tomahawk have already entered the fleet, and the conventionally armed land-attack version is undergoing extensive testing prior to its general introduction. At present, Tomahawks are deployed aboard battleships and a number of submarines, and are being introduced aboard DD-963 destroyers. To maximize the number of weapons that can be carried on each ship, we are installing the vertical launch system (VLS) on our new SSN-688 attack submarines, CG-47 cruisers, and DDG-51 destroyers, and are retrofitting the system on some DD-963 destroyers. The VLS is essentially a cell of launch tubes in which different types of missiles and rockets can be clustered. In addition to increasing the number of weapons that can be carried, the system improves the speed and reliability of launchings.

(b) Harpoon

We are continuing production of the highly successful Harpoon antiship missile, with funding for 395 missiles requested in FY 1986. The Harpoon system is deployed on most of our surface combatants and on many of our attack submarines as well. It can also be launched from P-3 patrol aircraft and A-6 attack aircraft, and we plan to incorporate it into the weapon suites of F/A-18 strike-fighters and S-3 antisubmarine aircraft. During the past year, ten long-range B-52G bombers were configured to fire the Harpoon, and we intend to modify 20 more by the middle of this year. This program, which enhances our capability to conduct antiship strikes worldwide, is an excellent example of how expanded cooperation among the military Services can increase our overall defense capabilities.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Battleship Reactivations				
Quantity	1	—	—	1
$ Millions	473.3	12.6	75.2	435.6
Tomahawk Missiles				
Procurement:				
Quantity	124	180	249	330
$ Millions	341.7	578.5	780.0	929.9
DD-963 VLS Backfit				
Quantity	—	—	3	3
$ Millions	—	—	127.4	123.4
Harpoon Missiles				
Procurement:				
Quantity	315	439	395	153
$ Millions	287.9	356.8	338.6	214.1

b. Antiair Warfare (AAW) Programs

Soviet antiship missiles pose a serious and growing threat to our naval forces and sea lines of communications. These weapons are being produced in several versions, designed for launch from bombers, submarines, and surface ships. Because their high speeds and elusive flight profiles make them very difficult to intercept, the missiles can best be countered by detecting and engaging the ships or aircraft carrying them before they reach launch position. Our antisubmarine warfare programs, discussed in the next section, are designed to improve our ability to locate and destroy enemy submarines over long ranges. Likewise, our antiair warfare programs emphasize efforts to improve our capabilities to intercept enemy bombers in an "outer defense zone" -- before our forces come within range of their missiles. But because these outer defenses must cover broad ocean areas that can never be totally sealed off from a determined attacker, we must also have systems that can knock out incoming missiles themselves. Overall, we seek to maximize the effectiveness of our AAW systems by maintaining a strong, "layered" defense in which attacking forces are countered in a series of engagements by different types of defensive systems.

The air defense system employed by our carrier battle groups illustrates this layered defense approach. "Outer-zone" protection is provided by an integrated team of airborne early warning aircraft, fighter-interceptors, and electronic warfare aircraft. These forces, which are discussed in the Tactical Air Forces chapter, can detect and intercept approaching bombers before they come within missile launch range of carrier battle groups and the other ships they may be protecting. To maximize the effectiveness of these outer-zone defenses, we are developing counter-targeting tactics and systems that will force enemy bombers seeking good missile-targeting solutions to move closer to our forces in order to launch an attack, thereby increasing the opportunities for our fighter-interceptors to engage them. "Area" defenses, the second layer of protection, are provided by long-range surface-to-air missiles (SAMs) installed aboard antiair warfare ships, such as the CG-47 cruisers and DDG-51 destroyers now under construction. Area SAMs protect not only the ships on which they are installed but also the neighboring ships in a naval task force. "Point" defenses, the last layer of protection, include short-range interceptor missiles, guns, decoys, and electronic warfare systems. They are designed primarily to protect the ships that carry them.

Beyond these efforts to maximize the protection afforded to our naval task forces, we are striving to improve our ability to detect and engage enemy bombers well before they reach the vicinity of our maritime forces. The key elements of this emerging capability are wide-area surveillance systems and land-based tactical air forces used in a maritime air defense role. Where geographically feasible, we will use our new long-range monitoring systems and upgraded command and control network to improve the joint employment of land- and sea-based fighters and early warning aircraft.

(1) Wide-Area Surveillance and Command and Control

Wide-area surveillance can maximize the effectiveness of outer zone defenses by providing warning of an attack early enough to position large numbers of fighters to engage enemy bombers. With a detection range of several hundred miles, the tactical over-the-horizon (OTH) radars now being developed will substantially increase the amount of warning time available to the force. Deployed in locations from which they can scan likely bomber approach corridors, OTH radars will greatly enhance the effectiveness of our maritime air defenses, both land- and sea-based. The system will also be "relocatable" to prepared sites, providing an emergency capability to establish surveillance coverage in areas that are not routinely monitored.

To provide overall command, control, communications, and intelligence (C^3I) support for our outer-zone air defenses and long-range antiship missile systems, we have instituted the Naval Command and Control System/System Engineering and Integration (NCCS/SE&I) program (formerly known as ITSS). Essentially a management coordination effort, this program will provide a means of integrating OTH radars and other sensor systems with surveillance and information management systems used by battle forces at sea. To facilitate these enhancements, we are upgrading the Naval Ocean Surveillance Information System (OSIS). Together, these programs will be the key elements of our future command and control and wide-area surveillance system.

(2) AAW Ships

To strengthen the fleet's area defenses, we are continuing construction of two new classes of antiair warfare ships, the CG-47 guided missile cruiser and the DDG-51 guided missile destroyer. These ships will greatly improve the long-range SAM capabilities of the fleet. Both feature the Aegis system, which incorporates the most advanced technologies available for detecting and intercepting high-speed cruise missiles at sea. The system's powerful phased-array radar can detect incoming missiles at long ranges, and its automatic fire-control equipment can track and engage many targets simultaneously, even under intense jamming conditions. These capabilities will substantially increase the air defense firepower of our battle groups against coordinated antiship missile saturation attacks.

(a) CG-47 Cruisers

Of the 16 CG-47 guided missile cruisers authorized through FY 1985, four will have entered service by the end of this year. Last year, the lead ship in the program, the USS TICONDEROGA, successfully completed an additional series of operational tests after returning from the Mediterranean Sea, where it was deployed in support of the multinational peacekeeping effort in Lebanon. The second ship, the USS YORKTOWN, joined the fleet last summer and is preparing for its first deployment later this year. The five-year shipbuilding program funds a total of 11 CG-47s, including three in FY 1986. This will complete the program at 27 ships, enough to support 15 carrier battle groups and four surface action groups centered around battleships.

(b) DDG-51 Destroyers

Last year, the Congress authorized the lead ship in the DDG-51 guided missile destroyer program. Like the CG-47, the DDG-51 will be equipped with the Aegis system, but it will be a smaller (8,300-ton), less costly ship and, therefore, affordable in larger numbers. It will carry a full complement of weapons systems for air defense, antisubmarine operations, and strikes against enemy surface ships and land targets. Although it will operate primarily with carrier battle groups and surface action groups, the ship will also serve as the principal escort for amphibious task forces and underway replenishment groups. We plan to buy a total of 17 DDG-51s over the next five years, two in FY 1987 and five each year thereafter. The FY 1986 request seeks advance funds for the two purchases scheduled for FY 1987.

(c) Cruiser and Destroyer Modernization

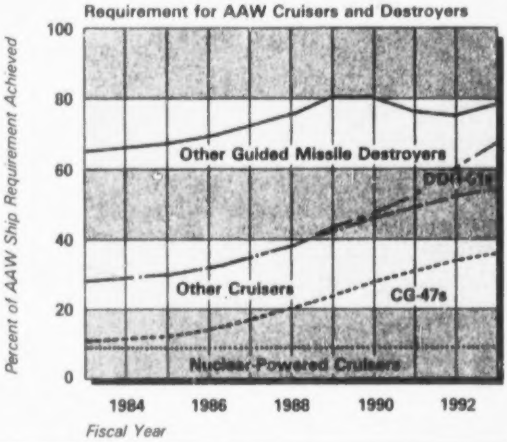
Until enough CG-47 cruisers and DDG-51 destroyers come on line, we will need to extend the service lives and upgrade the capabilities of our existing AAW ships. To that end, we are converting guided missile cruisers and some destroyers to carry the improved surface-to-air Standard Missile (SM-2). Compared with the older SM-1 missile it replaces, the SM-2 can cover wider areas and has a higher probability of intercepting incoming missiles. Second-phase improvements to shipboard radars and fire control systems are being implemented under the New Threat Upgrade (NTU) program. This package of modifications will enhance performance under jamming conditions. The NTU system has been successfully installed and tested aboard the guided missile destroyer USS MAHAN and ultimately will be extended to an additional 31 cruisers and destroyers.

(d) Force Levels

Under current planning factors, the Navy needs 100 AAW cruisers and destroyers to meet the escort requirements of its carrier battle groups, battleship surface action groups, amphibious task forces, and underway replenishment groups. It will have 69 of these ships by the end of FY 1986. As Chart III.B.3 shows, even with the 28 CG-47s and

Chart III.B.3

Shortage of AAW Ships in the 1990s



DDG-51s planned for authorization over the next five years and the ongoing modernization of existing ships under the NTU program, the Navy will continue to suffer from a shortage of AAW ships in the 1990s, when large numbers of guided missile cruisers and destroyers will have to be retired. Easing this shortfall will require continued construction of DDG-51s and follow-on AAW ships into the 1990s.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
OTH Radars				
Development:				
$ Millions	27.8	31.7	56.2	35.6
Procurement:				
$ Millions	—	—	—	8.3
CG-47 Cruisers				
Procurement:				
Quantity	3	3	3	3
$ Millions	2,971.5	3,024.5	2,834.8	2,988.9
DDG-51 Destroyers				
Development:				
$ Millions	123.2	126.5	104.8	88.8
Procurement:				
Quantity	—	1	—	2
$ Millions	79.0	1,050.0	164.3	2,246.8
Standard Missiles				
Development:				
$ Millions	31.4	40.7	47.2	54.2
Procurement:				
Quantity	1,190	1,384	1,316	1,800
$ Millions	624.8	764.3	874.1	1,047.2
Phalanx Close-In Weapon System				
Procurement:				
Quantity	40	49	39	32
$ Millions	136.5	172.4	151.6	134.1
Sea Sparrow Missiles				
Procurement:				
Quantity	321	327	380	408
$ Millions	66.4	74.1	80.8	86.6
Rolling Airframe Missile System				
Procurement:				
Quantity	—	30	117	400
$ Millions	19.0	20.4	45.1	113.8

(e) Surface-to-Air Missiles (SAMs)

To improve our area defense capabilities, we are procuring large numbers of surface-to-air Standard Missiles -- both the SM-1 and SM-2 versions -- for our AAW cruisers, destroyers, and frigates. The five-year program funds some 11,000 of these missiles, including 1,316 in FY 1986.

We are also introducing major improvements to the standard system. A "Block 2" version of the SM-2, now in production, will give our SAM batteries better intercept capabilities against sophisticated antiship missiles such as the Soviet AS-4. New warhead fuses, with improved capabilities against sea-skimming antiship missiles, are in development, and the Outer Air Battle Missile program is investigating the feasibility of intercepting enemy bombers before they can launch their weapons.

(3) Point Defense Systems

Modernization of the self-defense systems aboard surface ships will continue in FY 1986 with the procurement and installation of the Vulcan Phalanx Close-In Weapon System (CIWS), the MK-23 Target Acquisition Radar for the NATO Sea Sparrow missile system, and the AN/SLQ-32 electronic warfare system. The program also continues production of an improved version of the Sea Sparrow missile, (called the RIM-7M) and of the five-inch Rolling Airframe Missile (RAM) for retrofit in selected Sea Sparrow installations.

c. Antisubmarine Warfare (ASW) Program

Countering the Soviet submarine threat requires a layered offensive strategy that both maximizes enemy attrition and affords a high level of protection for our naval forces. The best means of neutralizing enemy submarines is to engage them in forward areas and barriers -- before they come within range of attacking our forces. For this, we rely primarily on attack submarines and long-range P-3 patrol aircraft supported by undersea surveillance systems. Enemy submarines that escape forward sweeps and penetrate our ASW barriers must contend with a layered defensive screen surrounding our naval task forces and convoys. Within this layered defense system, long-range protection is provided by land- and carrier-based patrol aircraft and by attack submarines operating in a direct-support role. At shorter ranges, protection is provided by formations of surface combatants equipped with passive and active sonar systems and by torpedo-armed antisubmarine helicopters.

(1) ASW Surveillance Systems

The ability to locate enemy submarines within broad ocean areas is essential to the task of countering the large Soviet submarine force. Fixed undersea surveillance systems have long played a key role in this respect. To improve our submarine surveillance capabilities, the FY 1986-90 program continues funding for two new systems -- one mobile and the other a rapidly deployable, air-dropped system -- designed to supplement our fixed sensors.

(a) TAGOS Surveillance Towed-Array Sensor System (SURTASS)

The Navy took delivery of its first two TAGOS SURTASS ships in FY 1984, and several others will enter service this year and next.

The long-range surveillance capabilities of these ships will be useful both for extending coverage to ocean areas not presently monitored by fixed systems and for providing backup coverage in areas that are routinely monitored, should our fixed systems be incapacitated. The Congress has appropriated funds for 14 TAGOS ships through FY 1985. We are requesting authorization of two more in FY 1986, followed by two additional units in FY 1987.

(b) Rapidly Deployable Surveillance System (RDSS)

For the future, we are investigating an entirely new deployable undersea monitoring system, the RDSS. Designed to be dropped from patrol aircraft, the RDSS would give our forces a means of rapidly establishing surveillance coverage in areas of special interest. Its ability to function for extended periods would make it particularly well suited for operations in remote areas; in an emergency, it could also be used to augment other sensors in areas we want to watch closely. Future plans for RDSS development will be determined later this year, after we have evaluated ongoing system tests and evolving strategies for detecting and combating Soviet submarines.

(2) Attack Submarines

Nuclear-powered attack submarines (SSNs) remain a key element of our ASW defense-in-depth strategy and are an integral part of our forward offensive strategy, especially for antisubmarine operations. Early in a war, our undersea forces must be capable of moving into far-forward positions, including waters where Western forces would lack control of the surface and surrounding airspace and where Soviet naval forces would be operating in strength. Areas of combat operations might also include the ice-covered Arctic. Operating under such conditions would place a premium on stealth and firepower -- areas in which the Soviets are fast encroaching on our long-held advantage. To maintain our advantage over Soviet capabilities, the FY 1986-90 program seeks continued improvement in the firepower and operating effectiveness of our attack submarine forces.

Of the 48 SSN-688s authorized through FY 1985, 29 have been delivered and are operating in the fleet today. The five-year program projects construction of 18 additional units, including four in FY 1986.

To keep pace with the advances in the Soviet submarine force, we are making several improvements in the SSN-688 design. New SSN-688s are being provided additional firepower through the installation of vertical launch systems, with the first submarine so equipped scheduled for delivery later this year. We also are making the SSN-688s quieter, and giving them a greater capability to operate under the ice -- which is essential for conducting forward patrols in northern waters. The submarines are also being given the capability to lay mines.

Further improvements to the Los Angeles-class are being made in the area of sensor and computer-processing capabilities. The Submarine Advanced Combat System (SUBACS), which will be installed on all submarines authorized in FY 1983 and subsequent years, incorporates the latest in computer technology, thereby improving reliability and helping to ensure that we maintain our technological edge in detection and targeting.

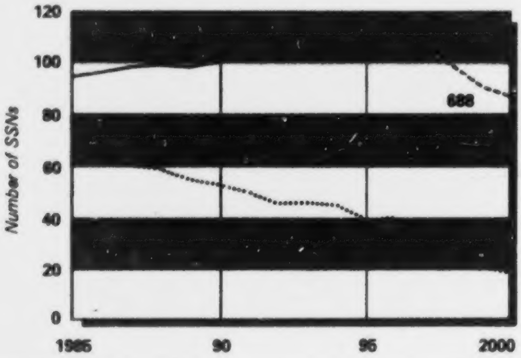
To capitalize on the flexibility of our SSN force, we are broadening the submarines' missions beyond the ASW duties they have traditionally been assigned. Last year, we began deploying Tomahawk cruise missiles on attack submarines in the Atlantic and Pacific Fleets, giving them an expanded role in antiship warfare as well as an entirely new role of projecting power ashore. These missions -- combined with the submarines' traditional ASW duties of battle group escort, barrier patrol, and forward area operations -- establish the basis for our force goal of 100 multimission SSNs.

To meet the Soviet submarine threat of the 21st century, we have started designing a new attack submarine, the SSN-21. A key objective is to make improvements in sound-quieting in order to preserve our acoustic advantage over a Soviet submarine force making major advances in quieting technology. The SSN-21 will also carry twice the number of weapons as existing classes, in addition to having more advanced sensor systems and being able to operate under the ice more effectively. These improvements, which cannot be accommodated within the SSN-688 hull, are necessary if we are to maintain our qualitative advantage over the rapidly improving Soviet submarine force and our ability to operate in forward areas. The SSN-21 will also provide the necessary flexibility to react to the inevitable changes that will occur in naval warfare over the next 40 years. A contract for the ship's design will be awarded this year, with authorization of the lead unit projected for FY 1989.

In the meantime, we must continue producing improved SSN-688 submarines at relatively high rates in order to provide replacements for the large numbers of older-model SSN-594s and SSN-637s that will have to be retired in the 1990s. Chart III.B.4 shows the changing composition of the nuclear-powered attack submarine force through the end of the century.

Chart III.B.4

Composition of Nuclear-Powered Attack Submarine Force



(3) Maritime Patrol Aircraft

P-3 maritime patrol aircraft, when provided information from broad-area surveillance systems on the general location of Soviet submarines, offer our most potent area antisubmarine capability. Fleet exercises have also demonstrated the aircraft's utility as long-range protection forces for carrier battle groups and other naval task forces. Several characteristics of the P-3 system contribute to these capabilities. The aircraft's long range and high endurance enable it to cover large ocean areas. Its large number of sonobuoys and advanced data-processing systems help pinpoint the location of enemy submarines. And its large payload of ASW torpedoes provides the capability to translate submarine detections into submarine kills.

The FY 1986-90 program continues production of the latest model in the P-3 series, the P-3C. A total of 250 of a planned force of 316 of these aircraft have been authorized through FY 1985. The five-year program adds 42 more -- all in the Update III configuration -- including nine in FY 1986. To promote program stability and to achieve cost savings, we are requesting funds to start a multiyear procurement program for the 33 aircraft scheduled for authorization during FY 1987-90. Beyond the procurement of new aircraft with improved performance features, we are retrofitting Update III avionics into earlier versions of the P-3C. For the future, we are developing an Update IV version of the P-3C with expanded processing capabilities and a new family of acoustic sensors designed to counter the quieting trend in the Soviet submarine force.

(4) Surface Ship ASW Systems

(a) Tactical Towed-Array Sonar (TACTAS)

The long-range detection capabilities of TACTAS will substantially enhance the ASW capability of our surface combatants, providing an essential counter to the increased range of weapons carried by Soviet submarines. The AN/SQR-18 towed-array sonar system is being deployed aboard all 46 of the FF-1052 frigates operated by active and reserve units, and aboard all of the Naval Reserve's FFG-7 frigates. The AN/SQR-19, a more advanced towed-array sonar system now in the final stages of development, will be installed later in the decade on DD-963, DDG-993, and DDG-51 destroyers and on CG-47 cruisers and active FFG-7 frigates. We are introducing improvements to both systems to maintain their detection capabilities against Soviet submarines.

(b) Light Airborne Multipurpose System (LAMPS)

Fleet deliveries of SH-60B LAMPS MK III antisubmarine helicopters have begun. The SH-60B, also known as the Seahawk, will allow modern surface combatants to exploit the opportunities for long-range ASW engagements offered by our new towed-array sonars. Engagements at extended ranges are essential if our forces are to destroy enemy submarines before they come close enough to launch salvos of long-range antiship missiles and torpedoes. LAMPS MK III helicopters will be deployed aboard some 100 surface combatants, including DD-963 and DDG-993 destroyers, CG-47 cruisers, and active FFG-7 frigates. A total of 90 SH-60Bs have been authorized through FY 1985, and the five-year program projects construction of 90 more.

(5) ASW Weapons

We must arm our antisubmarine forces with improved weapons as a means of countering new generations of Soviet submarines that not only are faster and quieter, but can dive deeper and are more resistant to hull penetration. To that end, we are continuing to improve both our heavy and lightweight torpedoes and our long-range ASW rockets.

(a) MK-48 Torpedoes

Following the completion of a successful test program last year, we are accelerating production of the ADCAP (advanced capability) heavyweight torpedo. The five-year program calls for production of 1,890 ADCAP units, including 123 in FY 1986. This submarine-launched weapon, an upgraded version of the MK-48, can be fired against either submarines or surface ships. It is designed to counter current and projected advances in Soviet submarine designs and tactics.

(b) Lightweight Torpedoes

The FY 1986-90 program also continues a major modernization of our inventory of lightweight ASW torpedoes. These weapons are designed for launch from surface ships, patrol aircraft, and antisubmarine helicopters. To provide the near-term improvements needed to counter new Soviet submarines, we are procuring an upgraded version of the MK-46, called NEARTIP (Near-Term Improvement Program). For the longer term, we are developing a much more advanced lightweight torpedo, the MK-50. That weapon promises significant improvements over the MK-46 in speed, diving depth, accuracy, and lethality. The system entered full-scale engineering development in FY 1984, after a highly successful series of demonstration and validation tests. It will join the fleet in the late 1980s. Further improvements in propulsion and destructiveness will be made through a preplanned product improvement (P^3I) program in the early 1990s.

(c) Long-Range ASW Weapons

We are continuing development of two new long-range ASW weapons that will be able to attack enemy submarines outside effective torpedo range. The first, the ASW Standoff Weapon (ASW SOW), is slated to replace the aging Submarine Rocket (SUBROC) deployed with the attack submarine force. The second new system, called the Vertical Launch ASROC (VLA), will replace the aging Antisubmarine Rocket (ASROC) system on surface ships equipped with the Vertical Launch System (VLS). Both of these weapons should reach the fleet within the next five or six years.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
TAGOS SURTASS Ships				
Procurement:				
Quantity	–	2	2	2
$ Millions	13.6	133.9	121.0	119.0
RDSS				
Development:				
$ Millions	16.2	10.6	15.4	20.8
SSN-688				
Procurement:				
Quantity	3	4	4	4
$ Millions	1,981.2	2,754.6	2,770.3	2,625.0
P-3C Aircraft				
Procurement:				
Quantity	5	9	9	9
$ Millions	303.9	413.1	496.5	488.3
TACTAS				
Procurement:				
Quantity	12	10	16	19
$ Millions	116.7	112.0	165.4	184.0
SH-60B Helicopters				
Procurement:				
Quantity	21	24	18	18
$ Millions	527.6	476.7	378.8	354.7

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
MK-48 Torpedoes				
Procurement:				
Quantity	144	108	–	–
$ Millions	117.5	91.7	2.4	2.5
MK-48 ADCAP Torpedoes				
Development:				
$ Millions	173.2	126.6	63.5	34.9
Procurement:				
Quantity	–	44	123	280
$ Millions	21.7	113.7	433.2	671.4
MK-46 Torpedoes				
Procurement:				
Quantity	1,200	1,565	500	500
$ Millions	215.3	231.5	132.8	106.8
MK-50 Torpedoes				
Development:				
$ Millions	143.3	146.3	168.4	169.9
Procurement:				
Quantity	–	–	–	84
$ Millions	–	–	–	124.1
ASW Standoff Weapon				
Development:				
$ Millions	27.4	51.3	75.3	113.7
Vertical Launch ASROC				
Development:				
$ Millions	30.8	26.7	37.4	38.1
Procurement:				
Quantity	–	–	–	250
$ Millions	–	–	–	71.7

d. Support and Mine Warfare Forces

The expansion of the fleet has brought with it an increased requirement for support ships. At the same time, our existing forces are aging and in need of replacement. To meet these combined demands, the FY 1986-90 program includes several programs to modernize and expand the support fleet, with particular emphasis on underway replenishment ships. It also significantly improves mine countermeasures capabilities, a mission area that has been severely neglected in the past.

(1) Multiproduct Station Ships

The battle group concept of operations requires one multiproduct station ship (an AOE or an AOR) for each carrier battle group, to keep it supplied with food, fuel, ammunition, and other provisions. As we move toward our goal of 15 deployable carrier battle groups, we will have to add four new multiproduct ships to the 11 now operated by the fleet. The five-year program funds four ships of the new AOE-6 class. Fiscal constraints have forced us to delay the first of these until FY 1987, one year later than we had anticipated last year.

(2) Fleet Oilers

To keep our multiproduct station ships supplied with fuel, fleet oilers perform shuttle service between battle groups at sea and forward bases. The TAO-187 program is designed to relieve an existing shortage of oilers, while providing replacements for the 30-year-old vessels now operated by the Military Sealift Command. The Congress has authorized seven TAO-187s through FY 1985, and we are projecting continued construction at a steady rate of two per year through the five-year program. In addition, starting in FY 1988, we will modify five existing AO-177 oilers to increase their fuel-carrying capacity.

(3) Mine Warfare Forces

The Soviet Union maintains the world's largest and most capable inventory of naval mines. These weapons have proven their effectiveness in many naval campaigns over the years. Our aging force of minesweeping ships and helicopters is only marginally effective against this threat. To improve our capabilities in this important area of naval warfare, we are procuring two new classes of mine countermeasures ships and a new type of minesweeping helicopter.

(a) Mine Countermeasures Ships

The MCM-1 mine countermeasures ship will both improve our minesweeping capabilities and provide our forces with a capability to hunt and neutralize advanced mines that cannot be countered by sweeping techniques. Nine of these ships have been authorized through FY 1985, the first of which, the USS AVENGER, will be delivered next year. The FY 1986-90 shipbuilding plan funds five additional units, completing the 14-ship program.

A second new type of mine countermeasures ship, the MSH-1 mine hunter-sweeper, will augment the MCM-1 during initial harbor clearance and breakout operations. It will be equipped with advanced combat systems similar to those on the MCM-1, but it will be smaller and less expensive. The Congress authorized the lead ship of this class in FY 1984. We are requesting funds for four additional ships in FY 1986, with a total of 16 projected over the five-year programming period.

(b) Mine Countermeasures Helicopters

The FY 1986-90 program also funds 33 additional MH-53E mine countermeasures helicopters, of which 29 will be purchased as part of a four-year MH/CH-53E multiyear procurement package. (The CH-53E helicopter is discussed in the Land Forces chapter.) The MH-53E offers significant improvements over the older RH-53D minesweeping helicopter in flight endurance and lift capability. We plan to buy a total of 44 MH-53Es, enough to form and support an 11-aircraft combat squadron on each coast. (The additional aircraft are needed for training and to replace operating losses or units undergoing maintenance.)

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
AOE-6 Multi-product Ship				
Procurement:				
Quantity	—	—	—	1
$ Millions	—	—	—	756.6
TAO-187 Oilers				
Procurement:				
Quantity	2	3	2	2
$ Millions	325.6	524.1	330.5	374.9
MCM-1 Ships				
Procurement:				
Quantity	3	4	4	1
$ Millions	286.6	356.7	371.1	132.8
MSH-1 Ships				
Procurement:				
Quantity	1	—	4	4
$ Millions	65.0	—	187.6	206.0
MH-53E Helicopters				
Procurement:				
Quantity	—	2	10	4
$ Millions	8.2	92.6	217.1	82.6

3. Conclusion

We are now beginning to see the results of our efforts to build a strong and balanced Navy with modern warfighting capabilities. We are well on our way to a 600-ship fleet. New, more capable ships and aircraft are entering the inventory in increasing numbers. The FY 1986-90 program carries these trends forward, giving us the maritime strength needed to reduce the risk of confrontation at sea and preserve the peace in the decades ahead.

Table III.B.3
FY 1986-90 Shipbuilding Program

	FY 1986	FY 1987	FY 1988	FY 1989	FY 1990	FY 1986-90 Five-Year Total
New Construction						
TRIDENT (Ballistic Missile Submarine)	1	1	1	1	1	5
SSN-688 (Attack Submarine)	4	4	4	2	4	18
SSN-21 (Attack Submarine)	—	—	—	1	—	1
CG-47 (Guided Missile Cruiser)	3	3	3	2	—	11
DDG-51 (Guided Missile Destroyer)	—	2	5	5	5	17
LHD-1 (Amphibious Assault Ship)	1	—	1	1	1	4
LSD-41 (Landing Dock Ship)	2	—	—	—	—	2
LSD-41 Follow-on (Landing Dock Ship)	—	—	2	2	2	6
MCM-1 (Mine Countermeasures Ship)	4	1	—	—	—	5
MSH-1 (Mine Hunter-Sweeper)	4	4	4	4	—	16
AOE-6 (Multipurpose Stores Ship)	—	1	1	1	1	4
AE-36 (Ammunition Ship)	—	—	1	1	1	3
AR (Repair Ship)	—	—	—	—	1	1
TAO-187 (Oiler)	2	2	2	2	2	10
TAGOS (Surveillance Ship)	2	2	—	—	—	4
Total	***23***	***20***	***24***	***22***	***18***	***107***
Conversions/SLEPs/Reactivations						
CV (Aircraft Carrier) SLEP	—	1	—	—	1	2
BB (Battleship) Reactivation	—	1	—	—	—	1
LPD-4 (Landing Platform Dock Ship) SLEP	—	—	1	3	3	7
AO ("Jumbo" Oiler) Conversion	—	—	1	2	2	5
AG (Acoustic Research Vessel) Conversion	1	—	—	—	—	1
TAVB (Aviation Support Ship) Conversion	1	—	—	—	—	1
TACS (Crane Ship) Conversion	3	2	2	—	—	7
Total	***5***	***4***	***4***	***5***	***6***	***24***

C. TACTICAL AIR FORCES

1. Introduction

Our tactical air forces are a vital and integral part of the forward defense strategy for protecting our national interests. Rapid response to aggression on a global scale requires a well-trained and properly equipped tactical air force to project force in an area of crisis and support our ground and naval components.

a. Program Goals

We must ensure that our tactical air forces are capable of maintaining air superiority and defending and supporting our ground and naval forces. The Soviets have built an inventory of more than 5,000 fighter and attack aircraft and are continuing to produce tactical aircraft at a rate higher than our own. Although our tactical air forces have long been considered superior to the Soviets in terms of combat capabilities, thus outweighing our numerical disadvantage, we are seeing a new generation of highly capable Soviet aircraft that could seriously contest our superiority. Countering this growing threat requires continuous improvements in the combat-effectiveness of our tactical air forces. We recognized this requirement and accepted the task four years ago.

Our FY 1986-90 program continues to focus on those four broad objectives identified four years ago and outlined below:

-- Improving the combat-readiness and sustainability of our tactical air forces through better training and increased stocks of weapons, munitions, and spare parts;

-- Modernizing the Active and Reserve Components with F-14, F-15, F-16, F/A-18, and AV-8B aircraft as well as with improved air-to-air and air-to-ground weapons;

-- Enhancing electronic warfare, tactical communications, and air defense suppression capabilities; and

-- Improving target acquisition, surveillance, and warning capabilities.

b. Force Structure

Our tactical air forces consist of fighter and attack aircraft, and a variety of special-purpose aircraft that support them in combat.

Fighter aircraft, armed with air-to-air missiles and guns, maintain control of the skies above land and naval forces, protecting them from air attacks (the "air superiority" mission). Fighter and attack aircraft, armed with bombs, guns, and guided weapons, are capable of attacking targets on land or at sea. They can attack enemy formations in close proximity to friendly forces (the "close air support" mission) or strike targets well behind enemy lines (the "interdiction" mission). Table III.C.1 depicts the type of aircraft generally associated with these missions.

Support aircraft assist fighter and attack forces in carrying out their combat missions. The missions of these aircraft fall into the general categories of airborne early warning, command and control, tactical reconnaissance, electronic warfare, in-flight refueling, defense suppression, and special operations.

Table III.C.1

Tactical Fixed Wing Aircraft

Mission	Type Aircraft (Service[a])
Air Superiority	F-15(AF), F-15E(AF), F-16(AF), F-4(AF,MC), F-14(N), F/A-18 (N,MC)
Close Air Support	F-16(AF), F-4 (AF,MC), A-10(AF), A-7(N,AF), A-4(MC), AV-8(MC), A-6(MC), F/A-18(N, MC)
Interdiction	F-111(AF), F-15E(AF), F-4(AF,MC), F-16(AF), A-7(AF,N), A-6(N,MC), F/A-18(N,MC), A-4(MC)

[a] AF = Air Force N = Navy MC = Marine Corps

(1) Air Force Aircraft

The Air Force's fighter force structure consists of 37 wing equivalents, 25 in the active force and 12 in the Air National Guard (ANG) and Air Force Reserve (AFR). Each wing typically contains three squadrons of 24 aircraft each. Combat support units, such as those composed of EF-111 electronic warfare (EW) aircraft, are generally organized into squadrons of 18 to 24 aircraft. By the end of FY 1990, we will have the equivalent of 39 tactical fighter wings, 26 active, and 13 ANG and AFR.

In support of our fighter forces, the Active and Air National Guard Components operate four electronic combat squadrons, fourteen tactical reconnaissance squadrons, one tactical air command and control division, two tactical air command and control squadrons, and nine tactical air support squadrons. By the end of the decade, we will have modernized several elements of these support forces.

The force also includes seven squadrons of B-52 aircraft that are assigned general purpose, as well as strategic nuclear delivery missions. These bombers, together with strategic reconnaissance and tanker aircraft, provide a highly responsive, long-range force designed to perform a variety of conventional missions, including naval minelaying, antiship attack, and conventional bombing.

(2) Navy and Marine Corps Aircraft

Unlike Air Force wings, which generally consist of only one type of aircraft, Navy and Marine Corps air wings include a mix of aircraft types. A typical active Navy carrier air wing consists of nine squadrons (approximately 86 aircraft): two fighter squadrons; two light attack squadrons; one medium attack squadron; plus supporting elements for airborne early warning, antisubmarine and electronic warfare, reconnaissance, and aerial refueling operations.

Table III.C.2

Typical Composition of Navy and Marine Corps Air Wings

Navy		Marine Corps	
Number	Type Aircraft	Number	Type Aircraft
24	F-14	48	F-4 (or F/A-18)
24	F/A-18 (or A-7)	20	A-6
10	A-6	60	A-4 (or AV-8)
4	KA-6	6	RF-4
4	EA-6	5	EA-6
4	E-2	12	C-130
10	S-3	60	CH-53
6	HS-3	96	CH-46
86	**Total**	24	AH-1
		24	UH-1
		15	OV-10
		370	**Total**

An active Marine Corps air wing typically consists of 23 to 25 squadrons (338 to 370 aircraft in all): four fighter/attack squadrons; two or three light attack squadrons; one or two medium attack squadrons; plus supporting elements for electronic warfare, reconnaissance, aerial refueling, transport, airborne assault, observation, and tactical air control.

When this Administration took office, the Navy had 12 active carrier air wings. Consistent with the planned expansion to a 600-ship force ultimately centered around 15 deployable carriers, we added a 13th wing in FY 1984 and will add a 14th during FY 1987. We will maintain three active Marine Corps air wings, two Navy reserve wings, and one Marine reserve wing throughout the program period.

2. FY 1986-90 Programs

The FY 1986-90 program for our tactical air forces is, with few exceptions, a continuation of our focus on improving combat readiness and sustainability; force modernization; electronic warfare; and target acquisition, surveillance, and warning. This program was formulated to address the necessity of maintaining and, where possible, expanding our superior air combat capabilities in the face of the Soviet's numerical superiority and advances in aircraft performance.

a. Combat Readiness and Sustainability

Improving combat readiness and sustainability continues to be one of our highest priorities. The following paragraphs highlight the efforts we are making to improve the combat capability of our forces. Logistics initiatives are covered in detail in the Readiness and Sustainability chapter.

(1) Combat Readiness

Combat readiness is determined by the amount and type of equipment and supplies on hand, as well as by personnel and training levels. We recognize that our forces, regardless of the technical sophistication of their equipment, offer only an illusory deterrent if perceived as unable to respond quickly and effectively. This Administration, therefore, has given top priority to improving the readiness of the forces and the equipment they operate. The FY 1986-90 program continues progress to date, building up stocks of spare parts for our aircraft and providing more realistic training for our aircrews.

(a) Equipment and Supplies

Peacetime operating spare parts are critical to the readiness of our forces. These items keep our equipment ready for training in peacetime and support increased levels of activity during the initial stages of a conflict. We have substantially increased funding for the procurement of spare parts during each of the past four years. Since FY 1982, we have added $25 billion for these items. This represents an increase of 45 percent in real terms.

(b) Personnel and Training

To realize the full potential of our significant investment in tactical aircraft, we must have highly trained aircrews. The amount of flying time we provide our crews is a good measure of their training and readiness levels. Largely because of their significant advantage in average flying time per crew member, together with superior training methods, our tactical aircrews continue to be considered superior to Warsaw Pact aviators.

In FY 1986, Air Force tactical aircraft pilots will average about 233 flying hours. This represents an increase of about 50 percent over the FY 1978 low of 156 flying hours, and is nearly double the time logged by Soviet pilots. Navy tactical aircraft pilots will average about 300 flying hours in FY 1986, up from 276 hours in FY 1984. We must sustain these increased levels of training if our aircrews are to achieve and maintain their full combat potential.

In addition to increasing flying hours, we are continuing to emphasize realism in training. Experience has shown that aircrews with high levels of realistic peacetime training have a significant advantage over less-skilled adversaries in the critical early days of a conflict. Instrumented air combat maneuvering ranges offer U.S. and allied aircrews unique and realistic training opportunities.

Joint Service exercises in which active and reserve units from the Air Force, Navy, and Marine Corps conduct integrated operations also increase the combat proficiency of our tactical aircrews. Examples of this type of training include the RED FLAG exercises held at Nellis Air Force Base, Nevada; the COPE THUNDER exercises conducted at Clark Air Force Base, the Philippines; and the combined arms, live-fire exercises held at the Marine Corps Air Station in Yuma, Arizona. The RED FLAG exercises are conducted north of Las Vegas, in an area larger than the country of Switzerland. Our aircrews are training the way they are going to have to fight.

(2) Force Sustainability

The possibility of extended conflict required accelerated improvements in our ability to sustain our forces. As a result, we increased Air Force and Navy funding for war reserve spares and munitions. These efforts have resulted in a significant increase in the number of days Air Force and Navy squadrons could conduct prolonged wartime operations.

In addition to sustainability, the five-year program gives force projection a high priority. We have provided funds to preposition aircraft support equipment, materiel-handling equipment, and support vehicles in Europe. Funds have also been provided to increase storage capacity for munitions and petroleum, oil, and lubricants (POL) in both regions. The Force Projection and Readiness and Sustainability chapters discuss these programs in more detail.

b. Force Modernization

Our modernization program for the tactical air forces is structured to meet three goals: to increase combat capability, to maintain the force at an acceptable average age, and to permit a modest force expansion.

The FY 1986-90 program calls for continued procurement of modern, high-performance aircraft as a key method of improving combat capabilities. F-14s, F-15s, F-16s, and F/A-18s equipped with the latest weapons and employed in their individual areas of designed excellence, provide us with the requisite improvements.

An average age of 10 to 11 years is considered acceptable for Air Force tactical aircraft. For Navy and Marine Corps aircraft, we prefer an average age of eight to nine years because of the high stress associated with carrier operations. By FY 1990, the aircraft operated by active and air reserve squadrons will have been in service for an average of 9 and 16 years, respectively. The aircraft in operation with active and reserve Navy/Marine Corps squadrons will have seen 9 and 14 years of service, respectively.

Over the next five years, we plan to buy 1,284 fighter and attack aircraft for the Air Force and 893 for the Navy and the Marine Corps. This procurement plan will allow us to modernize our tactical air forces and replace attrition losses, while also achieving our goals of expanding to 14 active carrier air wings by FY 1987 and 40 Air Force tactical fighter wings by FY 1991.

(1) Air Force Programs

Though our F-15 and F-16 aircraft could perform satisfactorily in air-to-air combat against Soviet aircraft today, we must pursue a vigorous modernization program if we are to retain our advantage by the end of the decade, when the Soviets will have deployed a new generation fighter aircraft with greatly improved air-to-air combat capabilities. Therefore, the FY 1986-90 program funds several development programs. We will increase the thrust levels of the engines delivered for the F-15 and F-16 fleet by FY 1990. We are developing an F-16 variant which will possess improved air-to-air capability. The Advanced Medium-Range Air-to-Air Missile (AMRAAM) will give the F-16 a night/all-weather, multiple target, radar-missile capability, and will improve the F-15's capabilities in multiple target engagements beyond visual range. For the future, we are continuing studies of Advanced Tactical Fighter (ATF) concepts which could lead to the introduction of a new aircraft type in the mid-1990s.

Further details on major elements of the Air Force's modernization program are provided below:

F-15 (Eagle) -- The F-15 is the Air Force's primary air-superiority fighter. Equipped with beyond-visual-range radar missiles, it can engage aircraft deep in enemy airspace from standoff positions in all types of weather. We plan to complete the F-15C/D buy with 40 in FY 1986 and then transition to the dual role F-15E, procuring 236 F-15Es through 1990 and continuing the buy until FY 1993. The F-15C/Ds will free earlier model F-15A/Bs for transfer to reserve force units. The F-15E will significantly improve the interdiction and airfield attack capability of our tactical forces. When equipped with Low-Altitude Navigation and Targeting Infrared System for Night (LANTIRN), these aircraft will possess the capability to operate against ground targets at night and in adverse weather.

F-16 (Fighting Falcon) -- A multirole fighter, the F-16 is capable of performing both the air-to-air combat and air-to-ground attack roles. It complements the F-15 as an air superiority fighter. We plan to procure 180 F-16s in both FY 1986 and 1987, then increase the production rate to 216 per year in FY 1988. Most of the F-16s will replace F-4Es in the active force, freeing those aircraft for transfer to the ANG, where they will replace early model F-4C/Ds.

We will split the procurement of F-16s in FY 1989 with the introduction of the F-16F. There are a number of promising technologies applicable to the F-16F in various stages of evaluation which may be incorporated. Certainly, the F-16XL with its fuselage extension and cranked-arrow wing for longer range and increased payload is promising as are improvements evaluated in the Advanced Fighter Technology Integration (AFTI) program.

Increased Thrust Engines -- Introduction of two new Soviet air superiority fighters during the late 1980s, coupled with improvements to the F-15 and F-16, which subsequently increased the weight of these aircraft, generated a requirement to increase their engine thrust levels. At present, we are determining the minimum thrust levels needed and will define a specific program by early next year.

MC-130H (Combat Talon II) -- A modified C-130 aircraft operated by the Special Operations Forces, the MC-130H is equipped with precision-navigation, terrain-following, and self-protection systems which enable it to penetrate enemy airspace at night and at low altitudes. Its primary mission is to deliver, resupply, and recover combat personnel and equipment behind enemy lines. By FY 1992, the inventory will include 35 modified C-130s.

HH-60A -- We plan to modernize a portion of the helicopters in our combat rescue fleet with the introduction of the HH-60A. This helicopter will improve our combat rescue capability in unfavorable weather conditions and at night.

LANTIRN -- Currently under development, LANTIRN is a pod-mounted navigation and targeting system designed to enable our F-15E, F-16, and A-10 aircraft to penetrate enemy air defenses at low altitude and to find and destroy enemy targets at night and under the weather. Soviet army doctrine stresses around-the-clock operations in all types of weather. Therefore, we must be capable of destroying enemy concentrations whenever they present themselves, and not allow darkness or the poor weather conditions prevalent in Central Europe to become their ally.

Imaging Infrared (IIR) Maverick -- An antiarmor, air-to-surface missile, the IIR Maverick is an evolutionary follow-on to the current TV-guided system. The IIR version uses an imaging infrared seeker for guidance, expanding its capability in the night-attack role.

Advanced Medium-Range Air-to-Air Missile (AMRAAM) -- The AMRAAM is a new, all weather, air-to-air missile being developed for use by both the Air Force and the Navy. Unlike current medium range radar missiles, which are guided to their targets by the radar systems aboard the aircraft which launch them, AMRAAM will have an active radar seeker, giving it a "launch-and-leave" capability. This means that the missile will be able to guide itself to its target. An aircraft carrying several of these missiles will be able to engage multiple targets on a single intercept, thus reducing its exposure to enemy air defenses.

AIM-9M (Sidewinder) -- An infrared-guided, air-to-air missile carried by both Air Force and Navy aircraft, the AIM-9M incorporates improved background-discrimination and countermeasures capabilities relative to earlier versions. Other improvements include a reduced-smoke motor, making it more difficult for an enemy both to see the missile and to locate the launch aircraft.

Tactical Aircraft Modification -- We modify our aircraft to enhance their combat capabilities, improve their reliability and maintainability, correct safety defects, and extend their service lives. Major elements of the FY 1986-1990 program include: F-111 avionics modernization, improved radar warning receivers, and AIM-9L/M self-protection capability.

Air Base Survivability (ABS) -- In FY 1984, we began a major program to increase the survivability of the overseas air bases from which we would operate aircraft during a crisis. The program in Europe includes improvements to the 22 main operating bases (MOBs) and 5 standby bases we maintain and to the more than 70 collocated operating bases (COBs), maintained by European allies, that we would share with NATO forces during a reinforcement of in-place forces. Funding for these facilities for U.S. use is provided for both by the NATO Infrastructure budget and -- where specified in NATO agreements -- by unilateral U.S. funding. Examples of projects that we must fund unilaterally under existing agreements are rapid runway repair equipment, chemical defense measures, and camouflage. NATO Infrastructure covers basic operating facilities, such as main runways, aircraft shelters, munitions storage, etc. The ABS program also includes air forces with Pacific and SWA commitments.

High priority projects begun with U.S. funds in FY 1985 include preparation of earthworks around key U.S. facilities at MOBs and COBs, construction of revetted, dispersed aircraft parking pads pending the construction of shelters, and procurement of munitions storage containers. The revetted parking pad program will continue through the late 1980s, using concrete slabs and other equipment that can be reused later for runway repair once the more costly permanent shelters become available. Studies accomplished over the past few years show that dispersed parking and sheltering for aircraft offer significant benefits in aircraft survivability against the kinds of air attack we would expect in a major war.

Due to a significant increase in infrastructure funding for FY 1985-90, there are a substantial number of aircraft shelters planned for contruction at the COBs. We also will be exploring the possibility of cooperative, bilateral airbase improvement projects to speed the enhancement of airbase survivability, including such concepts as joint procurement of chemical protective systems at COBs.

	FY 1984 Actual Funding	**FY 1985 Planned Funding**	**FY 1986 Proposed Funding**	**FY 1987 Proposed for Authorization**
F-15				
Development:				
$ Millions	110.0	189.6	252.1	110.3
Procurement:				
Quantity	36	42	48	48
$ Millions	1,514.5	2,066.2	2,209.1	2,221.8
F-16				
Development:				
$ Millions	98.6	94.6	94.9	214.1
Procurement:				
Quantity	144	150	180	180
$ Millions	2,551.7	3,306.5	3,708.7	3,661.7
MC-130H				
Procurement:				
Quantity	2	2	1	2
$ Millions	73.1	95.4	83.3	120.9
HH-60A				
Procurement:				
Quantity	—	—	3	25
$ Millions	—	6.1	122.1	340.2
LANTIRN				
Development:				
$ Millions	58.1	98.3	40.8	44.7
Procurement:				
$ Millions	—	90.0	436.4	786.1
IIR Maverick				
Procurement:				
Quantity	1,980	2,600	3,695	6,119
$ Millions	303.1	381.8	517.6	755.6
AMRAAM				
Development:				
$ Millions	190.7	209.7	101.4	1.1
Procurement:				
Quantity	—	—	90	505
$ Millions	57.8	73.1	438.4	853.3
AIM-9M				
Procurement:				
Quantity	1,700	—	800	769
$ Millions	104.5	—	43.3	64.1
Tactical Aircraft Modifications				
Procurement:				
$ Millions	639.9	810.9	812.8	1,553.2

(2) Navy and Marine Corps Programs

Over the next five years, we plan to buy 1,035 Navy and Marine Corps tactical aircraft, of which 954 are fighter and attack aircraft. To facilitate force modernization, 574 F/A-18 strike-fighters are planned during the program period. Twenty-eight Navy and 12 Marine squadrons will be equipped with the F/A-18 by the early 1990s. Recognizing the significant advancements in combat-effectiveness afforded by introduction of the multimission F/A-18 and planned upgrades to other carrier-based aircraft, our carrier air wings will also be restructured with a new mix of fighter, attack, and support aircraft.

Further details on major elements of the Navy's modernization program are provided below:

F-14 (Tomcat) -- The F-14 is a high performance, all-weather, air superiority fighter designed for fleet air defense and is the only aircraft in the Navy's inventory that can carry the long-range Phoenix air-to-air missile. The F-14 is intended primarily to protect carrier battle groups against long-range Soviet bomber and cruise missile attacks. It will continue to provide our carrier task forces with an organic reconnaissance capability by carrying the Tactical Air Reconnaissance Pod System (TARPS). To ensure its effectiveness against new-generation Soviet aircraft, we are modifying both the existing airframe and engine and will begin procuring an upgraded model, the F-14D, in FY 1988. The F-14D will incorporate significant improvements in avionics and radar, as well as new and more powerful engines. Transition of two naval reserve squadrons to the F-14 commenced in FY 1985. We plan to upgrade additional early production aircraft to complete the transition of four Naval reserve squadrons from F-4s to F-14s by FY 1988.

F/A-18 (Hornet) -- The F/A-18 strike-fighter, as it replaces older F-4s and A-7s, gives Navy and Marine aviation new flexibility. Capable of employment in both the fighter and attack role, the F/A-18 will be used to modernize a major portion of our tactical air force. In the future, we anticipate using F/A-18s for tactical reconnaissance missions. The first F/A-18 aircraft will be assigned to the naval reserve in FY 1986 to support two reserve squadrons. Additional naval reserve squadrons are planned to be equipped with the F/A-18 during the program years.

A-6E (Intruder) -- The A-6E is the only carrier-based aircraft that can attack land and sea targets at night in all types of weather. Operated by active Navy and Marine Corps units, the aircraft is particularly well-suited for war-at-sea, power projection, and deep interdiction roles. A mainstay of the fleet since 1963, we will ensure its continued effectiveness in the future threat environment by modifying it with improved navigation and target recognition systems as well as procuring an upgraded model in FY 1988. This upgraded version will incorporate improved avionics, radar, engines, and survivability features. In addition, we are studying Advanced Tactical Aircraft (ATA) concepts which could lead to the introduction of a replacement aircraft in the 1990s.

AV-8B (Harrier) -- A V/STOL attack aircraft, the AV-8B incorporates significant improvements over the earlier "A" model in payload, performance, and ordnance delivery accuracy. The AV-8B will replace older AV-8A/Cs and A-4s, freeing the A-4Ms for transfer to reserve units. This unique tactical aircraft will provide ground commanders with responsive close air support by combining the speed and firepower of a modern jet attack aircraft with exceptional basing flexibility.

CV-Helicopter -- The 1986-1990 program calls for development and initial procurement of a CV-helicopter to replace the SH-3. This gives our inner-zone ASW forces new offensive punch by introducing advanced sensors and weapon capabilities. Eventually, the CV-helicopter will be used to modernize Navy reserve forces.

AIM-7M (Sparrow) -- The AIM-7M is an all-weather, air-to-air missile designed for use with both Air Force and Navy aircraft. It relies on semi-active radar guidance to home on its target. First procured in FY 1980, the "M" model has greater electronic countermeasures resistance and look-down/shoot-down capabilities than the earlier "F" version.

Laser Maverick -- This highly accurate air-to-surface missile is designed to destroy enemy armor and heavy fortifications from standoff ranges. Its sophisticated laser guidance system makes it particularly suitable for use in the close air support role. The missile is compatible with all Navy and Marine Corps attack aircraft.

AIM-54A/C (Phoenix) -- A long-range, air-to-air missile, the AIM-54A/C is intended primarily for attacks against enemy bombers. The F-14 aircraft can carry six Phoenix missiles and is capable of near simultaneous launch against six targets in an all-weather, jamming environment. First procured in FY 1980, the "C" model has improved electronic counter-countermeasures features relative to earlier versions.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
F-14				
Development:				
$ Millions	40.6	277.1	348.1	252.5
Procurement:				
Quantity	24	24	18	18
$ Millions	976.0	964.2	812.4	910.5
F/A-18				
Development:				
$ Millions	19.8	29.9	58.3	92.6
Procurement:				
Quantity	84	84	84	102
$ Millions	2,472.3	2,588.2	2,849.6	3,310.5

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
A-6E				
Development:				
$ Millions	14.4	69.1	238.0	134.7
Procurement:				
Quantity	6	6	6	6
$ Millions	232.0	256.7	224.0	390.5
AV-8B				
Development:				
$ Millions	104.1	71.5	72.1	54.1
Procurement:				
Quantity	27	32	46	47
$ Millions	893.1	870.4	1,076.7	1,137.0
CV-Helicopter				
Development:				
$ Millions	18.4	20.1	12.7	2.8
Procurement:				
Quantity	–	–	–	7
$ Millions	–	–	30.0	283.8
AIM-7M				
Procurement:				
Quantity	374	1,344	1,492	1,502
$ Millions	86.0	223.6	293.0	290.3
Laser Maverick				
Development :				
$ Millions	6.9	2.0	–	–
Procurement:				
Quantity	185	600	1,500	1,800
$ Millions	36.2	103.0	199.1	222.1
AIM-54A/C				
Procurement:				
Quantity	265	265	265	420
$ Millions	332.8	365.7	393.5	542.8

c. *Electronic Warfare (EW)/Command, Control, and Communications Countermeasures (C^3CM)*

The rapidly expanding Soviet electromagnetic threat has generated significant changes in equipment and tactics within the U.S. forces. Recognizing that the proliferation of battlefield electronics is exceeding our capability to respond to each new system or modification, we are assuming an offensive posture to counter the full array of threat systems and provide for weapon system and avionics protection. Achieving an offensive posture rests heavily on a sound technology base, and timely, prudent systems acquisition.

The FY 1986-90 program funds a complementary mix of self-protection, disruptive, destructive, and support systems to improve the EW capability of strategic and tactical forces. These systems are designed to degrade hostile air defenses; deny the enemy unrestricted use of his command, control, and communications systems; and protect the security of our own communications.

We are pursuing the following major programs to improve our capabilities in these areas:

EF-111 -- The EF-111 is a standoff jamming platform designed to suppress enemy long-range detection and acquisition radars. It may also be employed in the close-in jamming and penetration/escort jamming roles.

EA-6B (Prowler) -- The carrier-based EA-6B is a sophisticated Naval tactical support aircraft designed to degrade enemy defenses by jamming their radars and communications systems. Because of the dynamic nature of electronic warfare, the program funds continued improvements to the EA-6B to counter new generations of enemy radars and weapons systems.

COMPASS CALL -- COMPASS CALL is an airborne jamming system designed to degrade an enemy's command, control, and communications capability. These EC-130 aircraft are in the field today; however, we have a number of ongoing programs to improve their capability. Additional COMPASS CALL aircraft are scheduled to be modified in the mid-1980s.

High-Speed Antiradiation Missile (HARM) -- HARM is an air-to-surface missile developed jointly by the Navy and the Air Force. It is designed to suppress or destroy land- and sea-based air defense radars. The system was fielded by the Navy in FY 1983 and by the Air Force in FY 1984.

F-4G Wild Weasel -- The upgraded Air Force defense suppression F-4G weapon system is employed to destroy surface-to-air missile (SAM) systems for all mission aircraft in the target area. F-4Gs are HARM carriers.

Precision Location Strike System (PLSS) -- PLSS is an all-weather standoff location/strike system. It will locate enemy defense emitters in near-real-time and in all weather conditions and allow attack from standoff ranges by both ground and airborne weapons systems. Currently under development by the Air Force, the system is scheduled to become operational in the late 1980s.

Airborne Self-Protection Jammer (ASPJ) -- ASPJ is a joint Navy/Air Force program which will provide many of our modern tactical aircraft with reprogrammable, electronic countermeasures designed to cope with the projected threat. The ASPJ system has been designed as an internal system which will not degrade aerodynamic performance.

d. Antijam, Secure Voice, Data and Identification Friend or Foe (IFF) Systems

Joint Tactical Information Distribution System (JTIDS) -- JTIDS is a secure, jam-resistant, digital data and voice system designed for use by all Services. The United Kingdom also plans to purchase JTIDS equipment for some of its tactical air forces. The system is now deployed on E-3A (AWACS) aircraft in Europe and will be deployed in U.S. systems later next year. The remaining portions of the system, which include terminals of various sizes and capabilities, will be fielded throughout the 1980s and into the 1990s.

The enhanced JTIDS system (EJS) will satisfy our requirement for a secure, jam-resistant voice radio for our tactical aircraft. As a near-term response to the Soviet jamming threat, we are modifying our tactical UHF radios with the HAVE QUICK system.

The Air Force, with participation by the Army and Navy, is also developing a combat identification system for use by the Services and our NATO allies. As suggested above, we are pursuing a program to integrate voice, data, and identification systems into a common, modular design.

TRI-TAC -- The Joint Tactical Communications program will provide modernized switched voice and digital communications required by our tactical forces. The majority of TRI-TAC subsystems will be in production in FY 1986, including tropospheric scatter radios, a family of digital message and voice switches and terminals, and the Communications Nodal Control Element which performs automatic technical control functions. RDT&E efforts in FY 1986 will include design of peculiar support equipment for these systems, specifications of electromagnetic countermeasures capability for the radios, maintenance of equipment at the Joint Test Facility, and the integrating and fielding of TRI-TAC communications equipment.

Tactical Air Control System Improvements (TACSI) Program -- TACSI will provide significant modernization of our aging and obsolete tactical command and control capabilities. The Marine Corps and the Air Force are developing and acquiring the Tactical Air Operations Center (TAOC) -- Modular Control Equipment (MCE). TAOC/MCE will provide the capability to handle a significant increase in command and control workload, enhance service interoperability, and reduce life cycle support costs. The Ground Attack Control Center System will incorporate MCE hardware components with additional software programs to provide the TACS with the capability to control air attacks more rapidly against time-sensitive mobile ground targets. In addition to MCE developments, the Air Force is pursuing Ultra-Low Sidelobe Antenna and Antiradiation Missile Decoy Development programs for the AN/TPS-43E tactical radars. These will improve the radar's jam-resistance and increase its survivability against antiradiation missiles.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
EA-6B				
Development:				
$ Millions	23.4	35.8	80.2	50.3
Procurement:				
Quantity	8	6	12	12
$ Millions	488.3	398.2	501.6	518.1
HARM				
Procurement:				
Quantity	698	1,559	2,619	3,706
$ Millions	379.2	589.5	752.0	930.8
F-4G Wild Weasel				
Procurement:				
$ Millions	73.5	97.0	18.2	222.5

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
PLSS				
Development: $ Millions	72.9	79.1	63.1	27.4
Procurement: $ Millions	8.8	153.1	138.4	72.5
ASPJ				
Development: $ Millions	84.4	65.3	36.2	18.6
Procurement: $ Millions	21.0	263.1	429.0	380.9
JTIDS				
Development: $ Millions	176.8	249.3	288.5	265.8
TRI-TAC				
Development: $ Millions	110.8	75.7	47.4	24.1
Procurement: $ Millions	356.4	375.6	751.9	1,383.8
TACSI				
Development: $ Millions	16.1	29.7	23.2	21.7

e. *Target Acquisition, Surveillance, and Warning*

The ability to locate and identify enemy air, naval, and ground forces is critical to effective tactical air operations and, therefore, to the outcome of the battle. We are pursuing the following major programs to improve our capabilities in this area:

E-3A Airborne Warning and Control System (AWACS) -- This Air Force aircraft is equipped with a long-range, look-down radar with substantial resistance to enemy jamming. Capable of detecting both air and ground targets, and of managing multiple fighter and attack sorties, the AWACS provides surveillance, warning, and control capabilities for use in North American air defense, as well as in overseas theaters of operations. It is also a valuable supplement to our naval forces in performing maritime theater operations.

We have decided to complete our procurement of E-3A AWACS aircraft with the 34 aircraft purchased through FY 1984. While the additional aircraft previously planned would provide valuable surveillance capabilities, we believe that new wide-area sensors -- such as over-the-horizon (OTH) radars discussed in the Nuclear Forces and Naval Forces chapters -- have a higher priority and greater long-term potential. To keep pace with the evolving threat, we will continue to upgrade our existing E-3A aircraft.

E-2C (Hawkeye) -- This carrier-based aircraft provides airborne early warning and command and control support for air defense and sea control missions.

TR-1 -- A derivative of the high-altitude U-2 reconnaissance aircraft, the TR-1 is equipped with an array of sensors designed to provide our forces with continuous, all-weather surveillance of the battle area.

Joint STARS -- The Joint Surveillance and Target Attack Radar System being developed by the Air Force and the Army, detects, tracks, and guides attacks against second echelon enemy armor to support the AirLand Battle.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
E-3A (Modification)				
Development:				
$ Millions	75.4	74.5	137.3	110.9
Procurement:				
$ Millions	166.4	78.1	33.4	67.2
E-2C				
Development:				
$ Millions	50.3	37.4	23.7	35.4
Procurement:				
Quantity	6	6	6	6
$ Millions	324.2	357.0	390.3	396.3
TR-1/U-2				
Procurement:				
Quantity	6	4	8	2
$ Millions	195.6	207.4	363.6	125.4

f. Rapid Deployment Force Program

The inherent deployment flexibility of modern aircraft makes them a key element of our rapid deployment forces. While virtually all tactical air forces are considered "rapidly deployable," the Air Force and Marine Corps have identified several units for commitment to the Central Command, oriented toward Southwest Asian operations. A mix of fighter, attack, and support aircraft have undergone special training to prepare them for this assignment. Recent Air Force and Marine Corps participation in the BRIGHT STAR '83 exercise offered an opportunity for in-theater training, as did deployment of two E-3A surveillance aircraft and eight F-15 fighters from the United States to Sudan during the Chadian crisis in the fall of 1983. That deployment revealed some limitations -- such as a lack of aircraft parking aprons, inadequate airport navigation facilities, and poor fuel storage and distribution, which complex modern aircraft could face when operating from unprepared sites. As an example, lack of sufficient parking aprons precludes dispersing the aircraft thereby increasing their vulnerability to sabotage. Our SWA construction programs are designed to overcome such limitations by upgrading key facilities to which we have access.

3. Conclusion

The program to improve our tactical air force combat capabilities through a consistent, long-term modernization effort continues in this five-year plan. Through procurement of the most modern and capable combat aircraft, munitions, and combat support systems and modification of existing aircraft, we are not only improving our combat capability and sustainability but also modernizing our force. Improvements in logistics support and training for our aircrews offer further increases in combat effectiveness. Together, the improvement efforts outlined in the preceding sections will build a flexible and balanced force, capable of deploying rapidly to distant regions and of bringing substantial firepower to bear against hostile forces in the air, on the ground, and at sea.

D. FORCE PROJECTION

1. Introduction

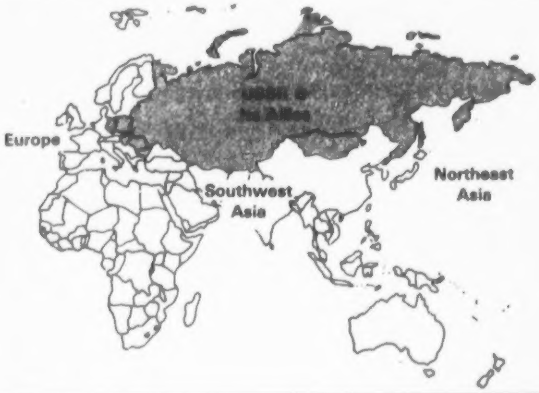
a. Strategy and Missions

Our investment in the force improvement programs described in the preceding three chapters would be worth little if we lacked the means to project military power in support of our national interests, wherever or whenever they are threatened. A combat force -- however well trained or equipped it may be -- simply cannot be effective if it must wait for lift at its home base while a conflict progresses overseas. Force projection is, therefore, vital, initially to the deterrence of aggression, but also to the conduct of a successful forward defense should deterrence fail.

These two principles of U.S. military strategy -- deterrence and forward defense -- place a premium on rapid deployability. They require that we have sufficient amounts of airlift and sealift, and of prepositioned materiel overseas, to maintain a credible deterrent while minimizing our peacetime presence in allied nations. They require that we be able to move major combat forces rapidly to endangered areas, and to support them for as long as their presence is needed. As the scope of our security interests has grown and the threat of regional conflicts has increased, so, too, has the range of demands on our projection forces.

Our most serious challenge is posed by the Soviet Union, which, in conjunction with its Warsaw Pact and North Korean allies, enjoys a significant advantage of proximity to three critical theaters -- Europe, Southwest Asia (SWA), and Northeast Asia (see Chart III.D.1). U.S. projection forces are sized to support a strong forward defense of these vital areas, concurrently if need be. The deployment demands are met by a combination of military and civilian transportation systems, augmented by overseas prepositioning and by ships and aircraft provided by allied nations.

Chart III.D.1
Soviet Geographic Advantage



b. Contributions of the Various Force Elements

(1) Airlift

Airlift, our most flexible and rapid force-projection resource, would play a vital role in virtually any deployment. In regions such as Southwest Asia, where we maintain only a very limited military presence in peacetime, airlift would deliver the initial increment of combat forces. These forces -- consisting largely of tactical air, air defense, and light ground units -- would be needed to secure a lodgment and defend ports and airfields in preparation for the arrival of much larger follow-on forces. For deployments to regions such as Western Europe, airlift is the only transportation mode that can satisfy our immediate reinforcement objectives.

Heavier forces, such as armored and mechanized units, cannot be transported rapidly by air in the numbers needed for either a European or Southwest Asian conflict. It is simply too expensive to buy that large an airlift force. Yet we must be able to move such units quickly, particularly in a NATO reinforcement, given the heavily armored forces they would face. Large armored and mechanized forces can be deployed rapidly only by combining airlift with extensive prepositioning.

(2) Prepositioning

Prepositioning, whether on land or at sea, can sharply reduce lift requirements in the important early days of a deployment. For example, by storing the heavy equipment of mechanized divisions in Europe, we can cut each division's transit time from several weeks to two or three days, thereby enabling us to meet our early NATO reinforcement objectives. Although land-based prepositioning programs do much to improve early combat capability, their contributions are limited to the theaters in which materiel has been stored. Prepositioning at sea offers greater flexibility, since ships can be moved from one region to another as regional priorities or circumstances change.

(3) Sealift

In most cases, Army and Marine Corps units for which equipment has not been prepositioned would deploy by sea. Amphibious lift forces and government-controlled ships maintained in a high state of readiness would be the first to depart. We would also use ships from the U.S.-flag fleet, and in a NATO or Korean conflict, we would draw on a pool of ships committed by allied nations. Commercial ships in or near a port could be loaded relatively quickly and take part in the initial deployment. Ships at sea, which could take some time returning to port, would carry follow-on reinforcements.

Just as we do with airlift, we combine prepositioning with sealift to shorten response times. In this case, cargo-handling equipment and other items needed to unload ships and operate ports are stored near potential conflict regions so that the first ships to arrive would have a full support capability awaiting them. Having these materials on hand would be especially important in deployments to Third World regions, where port facilities are often austere.

(4) En Route Basing Support

Access to bases en route to a conflict theater would be important in any deployment, particularly one involving a large amount of airlift. To move large forces quickly, we must maximize the amount of cargo carried aboard each aircraft. Without access to intermediate bases for refueling, we would either have to reduce cargo loads in order to take on more fuel or press an already overburdened aerial-refueling force into additional service. Although many of the facilities we have received permission to use are adequate for day-to-day operations, they must often be modified or augmented in peacetime to make them capable of supporting military operations during a crisis.

c. Segments of a Deployment

For planning purposes, deployments are often characterized as having two segments: an "intertheater" stage involving the movement of forces and materiel to or between major geographic regions or theaters; and an "intratheater" stage comprising subsequent moves within an operating theater. Some aircraft and ships are designed to operate over a single deployment segment, while others can be employed effectively over both. Examples of single-segment contributors include converted SL-7 ships, which, at more than 30 knots, are best used over long intertheater shipping routes, and the medium-range C-130 aircraft, the workhorse of the intratheater airlift fleet. Systems capable of contributing to both deployment segments include amphibious ships (discussed in detail in the Naval Forces chapter) and the new, long-range C-17 aircraft, whose ability to deliver forces and equipment directly to austere forward locations will make it a valuable complement to both the intertheater and intratheater fleets.

d. Force Projection Goals

Given the growing ability of the Soviet-bloc nations to launch simultaneous offensives in Europe, Southwest Asia, and the Pacific region, our long-term goal is to be able to deploy the forces we need to these areas concurrently. Because the European and SWA portions of any such deployment would place the heaviest demands on our projection forces, our objectives for those regions are discussed in more detail below.

(1) Europe

Rapid reinforcement is central to the U.S. commitment to NATO. Because the Warsaw Pact maintains a large military force along its borders with NATO, and the region's extensive road and rail networks would support a major, rapid enemy buildup, NATO must be prepared to initiate a large-scale reinforcement of its in-place forces immediately upon warning of an attack. We are committed to deliver six Army divisions, 60 tactical fighter squadrons, and one Marine Amphibious Brigade (MAB) -- all with initial support -- to their combat positions within 10 days. Although further reinforcements would be needed later, this should enable NATO to prevent a Pact breakthrough in the early stages of an attack. Because the forces must be in place before sealift could respond, they would have to be deployed by air and would draw on equipment that had been stocked for them in advance.

Once the initial reinforcements had been airlifted to the theater, sealift would accomplish most of the remainder of a deployment. Because government-controlled and U.S.-flag shipping could fulfill only a portion of the requirement, we would also use ships obtained from allied civil fleets. Our dependence on allied shipping would be substantial if we had to deploy forces simultaneously to two or more theaters.

(2) Southwest Asia (SWA)

Our deployment objectives for SWA are much different from those for NATO. This is partly because a serious Soviet threat to this theater would take longer to materialize due to the limited road and rail system and the greater distances to be traveled. Even so, our forces would have to move more than 12,000 nautical miles by sea and some 8,000 nautical miles by air -- nearly double the distance to Europe. At their destination, they would be operating from ports and airfields that might lack the modern cargo-handling equipment found at European facilities. But one of our toughest challenges follows from the fact that, with no combat units forward deployed in SWA, we would have to deliver an entire fighting force, with all of its support elements -- and do so very quickly.

Our objective is to be able to deploy a major joint task force and required support within six weeks of being asked for assistance. Establishing air defenses would have a high priority in the early stages of a deployment, as would the protection of ports and airfields. Airlift, combined with prepositioning, would deliver the forces needed to accomplish these tasks. Heavy combat and support forces would follow on fast sealift, with conventional sealift completing the deployment. Although these objectives are challenging, they can be met with the planned improvements to our projection forces if we have modest support from friendly nations in the region and if we respond promptly to warning.

e. Current Force Structure

The U.S. military maintains a diverse fleet of aircraft and ships to serve the transportation needs of its forces. The inventory includes 304 C-5 and C-141 long-range cargo aircraft (designed primarily to transport materiel to or between theaters of operation) and 26 KC-10 dual-role airlift and aerial-refueling aircraft. Another 518 aircraft of shorter range (C-130s) and some 700 helicopters (CH-47s, CH-53s, and CH-54s) contribute to the movement of troops and supplies within theaters. In addition, approximately 90 dry cargo ships and 30 tankers are maintained under government control. Most of these ships could be made available for sealift operations within five to ten days of notification. Approximately 140 additional cargo ships are in long-term storage and could be readied for use within one to three months.

These forces would be augmented in a major deployment by aircraft and ships drawn from the U.S. civil fleets. The Civil Reserve Air Fleet (CRAF) could contribute 226 passenger and 63 cargo aircraft. The U.S.-flag fleet could supply approximately 202 dry cargo ships and 120 tankers. Of these, 142 cargo ships and 17 tankers could be made available by charter or government contract under the Sealift Readiness program, which operates at no direct cost to DoD.

f. Assistance from Allies

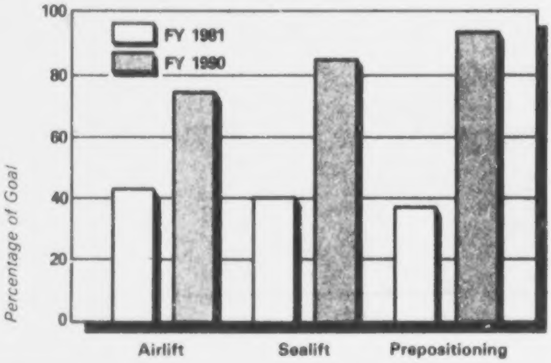
The NATO nations and the Republic of Korea (ROK) have agreed to contribute a number of ships and aircraft for a U.S. reinforcement of their regions. The European allies have earmarked some 600 ships for this purpose -- the majority of the sealift capacity needed for a NATO reinforcement. To augment our airlift forces, they would provide nearly 40 long-range cargo transports and nearly 40 passenger aircraft. The ROK likewise has promised to make available a pool of ships and aircraft for a reinforcement of Northeast Asia. These commitments would speed the arrival of U.S. troops and materiel, and free some of our aircraft and ships for use elsewhere.

g. Improvements Since FY 1981

While the United States' force projection capabilities were substantial when this Administration took office, the forces on hand were insufficient to meet all of the potential deployment demands. We lacked the ability to move large forces quickly enough to deter, with reasonable confidence, Soviet aggression in distant regions. Nor could we have deployed major forces to two or more theaters simultaneously. Moreover, we lacked the ability to unload the full range of ships needed to move materiel into less-developed regions. Since FY 1981, we have made considerable progress in redressing these deficiencies, adding subtantially to our airlift and sealift capacity and prepositioning additional large quantities of materiel abroad.

In January 1982, we announced a major airlift program calling for the procurement of nearly 100 wide-bodied transport aircraft. In September 1983, we began a long-proposed program to enhance the capabilities of the CRAF by adding cargo-convertible features to wide-bodied passenger aircraft in the fleet. Combined with an increase in spare parts purchases over the past four years, these initiatives will, by FY 1985, increase our intertheater airlift capacity by roughly 35 percent and almost double our ability to move outsized equipment -- which includes major weapons systems for ground forces -- by air.

Chart III.D.2
Programmed Improvements to Force Projection Capabilities (FY 1981 - 1990)



For sealift, the FY 1983 budget began a significant expansion of the Ready Reserve Force (RRF) along with a number of readiness-related improvements. It also began a program to increase the contribution of the U.S.-flag fleet to the movement of military materiel. (The equipment being purchased under this program will enable commercial containerships to carry the full range of military cargo.) Combined with an acceleration of a major sea-based prepositioning program, these programs will have tripled our sealift capacity by the end of FY 1985.

Chart III.D.2 summarizes the force projection improvements programmed through FY 1990.

2. FY 1986-90 Program

The programs we are proposing for the next five years continue the emphasis this Administration has placed on strengthening U.S. force projection capabilities. A number of the programs are focused on improving our ability to move forces to underdeveloped regions. Completing these programs will bring us considerably closer to our goal of being able to deploy and sustain major combat forces in two or more theaters simultaneously.

The planned airlift improvements will help eliminate long-recognized shortages. The prepositioning of additional materiel abroad will enhance our rapid-response capabilities worldwide. Especially noteworthy will be the completion in FY 1986 of the Maritime Prepositioning Ship (MPS) program, which will give us the capability to deploy three heavily configured MABs very rapidly to any point near which these ships are based. The sealift-related improvements will increase the availability of government-controlled ships early in a deployment. Furthermore, they will provide fast transport for an Army division and improve our ability to unload cargo in austere ports or over the beach.

a. Airlift Programs

The FY 1986-90 program continues to give high priority to increasing airlift capacity. By the end of the decade, we will have added 50 C-5Bs and 44 KC-10s to the intertheater fleet and begun procuring a major new transport aircraft. As these programs move forward, we will continue to improve the performance of existing aircraft, increasing the cargo contribution of the civil fleet and extending the service lives of important components of the military fleet.

(1) Expansion of Airlift Capacity

The C-5B increases our ability to move outsized equipment, such as tanks, self-propelled howitzers, and helicopters. These items would have to be substantially dismantled in order to be carried by any other aircraft in military or civilian use. Upon arrival in the combat theater, the equipment would have to be reassembled -- a time-consuming process that would slow the deployment and introduce risks. This problem would be particularly severe in a NATO reinforcement, given the large amount of outsized cargo that would have to be moved within the first 10 days. Adding to our outsize capability with additional C-5Bs helps resolve this problem.

The KC-10 adds a new dimension of flexibility to the airlift force. It can operate as a transport aircraft or a tanker, or as both simultaneously. Consequently, we can use it in whichever mode best serves the needs of a deployment. In a NATO reinforcement, it could be employed as a transport aircraft for moving bulk and oversized cargo. In deployments to other regions, where access to intermediate bases for refueling might be limited, it could be used as a tanker for refueling C-5s and C-141s, or it could operate in a mixed role, carrying fuel for fighters and a limited amount of cargo.

Under the CRAF Enhancement program, we are adding "cargo-convertible" features to 19 wide-bodied passenger aircraft that would be used for military airlift operations during a national emergency. The modifications will enable the planes to be converted to carry military cargo. This cost-effective program will increase the cargo contribution of the civil fleet by more than 30 percent while avoiding the cost of acquiring and operating additional military transports of comparable capability.

Although these programs will significantly increase our intertheater airlift capacity, they cannot meet our long-term goals. Consequently, the FY 1986 budget includes a request for funds to continue full-scale engineering development of the C-17 transport aircraft, working toward a production start in FY 1988. Though smaller than the C-5, the C-17 will be able to carry the full range of military equipment, including all armored vehicles and most other outsized cargo. Unlike most other intertheater aircraft, however, it will be able to operate on austere airfields, thereby increasing the amount of cargo that can be delivered directly to operating forces. After its intertheater mission is completed, the C-17 could be used to augment the C-130 fleet in moving troops and materiel within theaters.

(2) Improvements to Existing Aircraft

Meeting our airlift objectives requires that we improve our existing forces as well as acquire additional capacity. Over the next five years, we will complete two major upgrade programs for the intertheater and intratheater fleets, while expanding our inventories of spare parts.

(a) Intertheater Airlift

In FY 1987, we will complete a major modification program for the C-5A fleet. The work entails correcting structural deficiencies in the planes' wings. Once modified, all 77 aircraft in the fleet will be able to remain in service well into the 21st century.

We also are continuing to build up our stocks of spare parts for the C-5A and C-141 fleets. We must buy adequate amounts of these items in peacetime if the aircraft are to achieve and sustain their planned surge rates in a crisis.

(b) Intratheater Airlift

Last year we began a program to modify the wings of older-model C-130 aircraft. The project was undertaken in order to repair corrosion damage and to correct problems caused by stress. The "A" models will be modified during regularly scheduled depot maintenance periods through FY 1986; work on the remaining aircraft will be completed in FY 1989. With these refurbishments, the "A" models of the C-130 fleet will be able to remain in service into the mid-1990s, while the later C-130s will remain operational into the next century.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
C-5				
Procurement:				
Quantity	4	8	16	21
$ Millions	1,358.3	1,652.4	2,380.6	2,212.8
KC-10				
Procurement:				
Quantity	8	8	12	8
$ Millions	786.1	619.9	519.0	124.1
CRAF Enhancement				
Procurement:				
Quantity	3	4	5	–
$ Millions	95.4	128.9	164.9	–
C-17 Cargo Aircraft				
Development:				
$ Millions	25.7	123.3	453.7	624.8
Procurement:				
$ Millions	–	–	–	244.9

b. Sealift Programs

Sealift is vital for projecting and sustaining the full range of combat and support forces. In a large deployment, it would deliver most of our forces and cargo, including much of the nonprepositioned equipment of heavy divisions and support units, as well as the bulk of our ammunition and supplies.

(1) Fast Sealift

In FY 1981-82, we acquired eight SL-7 container ships. At 30 knots, these are the fastest cargo ships available. To enable them to carry the full range of military cargo, and to shorten their loading and unloading time, we are converting the ships to a self-sustaining, "roll-on/roll-off" configuration. The first four conversions were completed in 1984, and the remaining ships will be operational by the end of FY 1986. The first two ships were successfully employed in last year's GALLANT EAGLE and REFORGER exercises. One of the ships also took part in the Joint Logistics Over-the-Shore (JLOTS-II) tests conducted last summer to evaluate cargo-discharge capabilities in austere environments.

(2) Maritime Prepositioning Ships

The Maritime Prepositioning Ship (MPS) program provides for one of the most dramatic improvements in rapid force projection. We are chartering 13 ships that will be loaded with equipment and supplies for three MABs, each capable of conducting highly mobile mechanized operations. The ships will be maintained at various locations from which they would be capable of departing for trouble spots on very short notice. The troops and residual equipment would be airlifted to the theater, where they would pick up their combat gear from the ships. This will make it possible to deploy an operational force to remote regions much faster than was previously possible. Once unloaded, the ships could be used to move equipment and supplies for other deploying units.

The first MPS task force will be on station in the Atlantic in early 1985, and the remaining two will be deployed in late FY 1985 and FY 1986. The second task force will be stationed in the SWA region, while the third will be placed in the Pacific.

(3) Ready Reserve Force

As noted earlier, we have begun a program to expand the Ready Reserve Force (RRF), a part of the National Defense Reserve Fleet. Current plans call for the force to grow to 116 ships (100 cargo ships and 16 tankers) by the early 1990s. This represents an increase of 39 ships over previously planned levels, necessitated by a continuing decline in the breakbulk component of the civil fleet.

This important force can be made available for sealift operations on five to ten days' notice without disrupting routine commerce. In a major crisis, its ships would provide some of our earliest available sealift. We also could use the ships for smaller contingencies not requiring the entire U.S.-flag fleet.

(4) Container Ship Utilization

In their operations to recapture the Falkland Islands, the British found breakbulk ships to be the most useful vessels for delivering cargo. These ships carry their own cranes and can accommodate the full range of military cargo. With the switch to containerization in the maritime industry, however, breakbulk ships have come into increasingly short supply. Though the greater use of containerships has substantially increased shipping companies' productivity, it has put into commercial service a ship with limited utility for military operations. Most of these ships require modern ports with extensive crane facilities to load and unload cargo. Also, many items of military equipment are not suitable for containerization.

The Navy has developed two techniques for giving containerships a breakbulk capability for military missions. One involves using large platforms, called "flat racks," to build a tier of decks for carrying cargo. The racks fit into the standard container guides on these ships and can support all but the heaviest items of military equipment. In essence, they function as portable decks that are loaded and unloaded with the cargo they carry. Alternatively, the ships can be fitted with large containers, called "sea sheds," to create a cargo hold accessible from the main deck. Installed in reinforced container guides, these devices can carry the full range of military cargo. Once fitted, they can remain in a ship indefinitely. We plan to buy enough flat racks and sea sheds to outfit approximately 40 containerships. A fleet of that size could provide lift for about one Army division and its supporting elements while carrying equipment to operate ports.

(5) Sealift Discharge

A deployment to SWA could well require unloading ships in austere or damaged ports, or in areas lacking port facilities. The Army and Navy are working together to improve their ability to deliver forces under these conditions. Key programs supporting that effort include the procurement of transportable barges for unloading ships unable to navigate in shallow water; mobile piers; portable facilities for unloading petroleum, oil, and lubricants (POL) from tankers; portable ramps for removing cargo from roll-on/roll-off ships; and auxiliary crane ships (TACS) for unloading non-self-sustaining containerships. A total of 11 TACS are scheduled for procurement through FY 1989.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
SL-7				
Procurement:				
Quantity	4	–	–	–
$ Millions	227.0	–	–	–
Ready Reserve Force				
Procurement:				
Quantity	24	6	12	4
$ Millions	83.0	31.0	203.4	29.1
TACS				
Procurement:				
Quantity	–	1	3	2
$ Millions	–	36.0	64.9	68.7
Sealift Support Equipment, Flat Racks, and Sea Sheds				
Procurement:				
$ Millions	27.7	24.1	59.0	87.2

c. Prepositioning Programs

Prepositioning expedites the delivery of major combat forces in crises. By storing military equipment and supplies in or near potential conflict regions, we reduce lift requirements tremendously and maximize the rate at which forces can be deployed. Over the next five years, we will be adding to our stocks of prepositioned equipment in Europe, while completing a major sea-based program that will enhance our rapid-response capabilities worldwide.

(1) Prepositioning in Europe

Prepositioning of U.S. equipment in Europe began in the 1960s in response to U.S. and European concerns that the forces available in the theater in peacetime were inadequate to meet a mobilized Warsaw Pact threat. Since that time, the Pact has increased the size and effectiveness of its forces. As a result, the need for rapid deployment of heavy, mobile forces is at least as great today as it was when the prepositioning program was first proposed.

Under the POMCUS (Prepositioning of Materiel Configured to Unit Sets) program, the Army stores heavy items of equipment (e.g., trucks, personnel carriers, and tanks) in dehumidified warehouses in Europe. The equipment is arranged in unit sets, ready to be moved out of storage to a marshalling area. This means that only the troops themselves and any remaining equipment (such as helicopters and electronic gear) would have to be airlifted to the theater at the outbreak of a crisis. On arriving in Europe, the forces would be trucked to the marshalling areas, where they would pick up their prepositioned equipment, assemble into units, and move forward.

We are committed to provide POMCUS equipment for a total of six U.S.-based Army divisions and supporting units. Four division sets are already in place, and work on the remaining two is under way. The host nations for the fifth and sixth sets, Belgium and the Netherlands, have provided land for the storage facilities, and the NATO Infrastructure Fund is subsidizing the construction costs. The first of the new warehouses began receiving equipment last summer, and we expect the remainder to be ready by September of this year. With continued congressional support, we plan to move equipment into the warehouses as they become available.

The Air Force is prepositioning equipment in Europe to support the tactical fighter squadrons it would commit to a NATO reinforcement. The materiel in storage ranges in type from engineering, ground support, and medical equipment to munitions, spare parts, and POL.

The Marine Corps has begun a land-based prepositioning program in Norway to support an amphibious brigade. Some equipment is in temporary storage, while other materiel will be positioned as NATO-funded permanent storage facilities are completed. The latter construction programs will begin this year.

(2) SWA Prepositioning

Our prepositioning efforts in SWA serve three main objectives: they permit forces to be deployed rapidly to the region; they provide the materiel needed to unload ships in austere ports; and they provide supplies and ammunition to cover expected consumption until sealift can meet demands. We are making extensive use of sea-based prepositioning in the region because we lack land-based sites and because it provides flexibility to meet the variety of contingencies we might encounter in SWA or elsewhere.

Our ship-based prepositioning program dates from mid-1980, when the Near-Term Prepositioning Force (NTPF) was created. That force originally comprised seven ships stationed at Diego Garcia. Five of the ships carried equipment and supplies for a MAB; the sixth and seventh carried a medical facility and fuel for the Marines and other early deploying forces. Eleven depot ships, carrying materiel for Army and Air Force units, were added to the force during FY 1981-82. By the end of CY 1985, we plan to have replaced the five ships containing Marine Corps equipment and supplies with five ships carrying equipment and supplies for the second MPS task force. We also plan to retain approximately 12 depot ships loaded with materiel for Army and Air Force units.

d. Access to Foreign Facilities

We have reached formal agreement with several nations, and are seeking permission from others, to preposition materiel and conduct routine training exercises during peacetime, and to use regional facilities during crises. In some cases, it has been necessary to improve existing facilities. These projects were initially funded in FY 1980-81, and most will be completed by the end of FY 1987.

By agreement with the United Kingdom, we have enlarged the airfield at Diego Garcia to increase its capacity to support en route refueling. The port facilities have also been upgraded in preparation for mooring additional MPS and ammunition ships. Facilities at Lajes Air Base in the Azores are being upgraded, and we are receiving Portugal's approval to provide for additional fuel storage at the base. These programs enhance our ability to deploy forces rapidly in a crisis as well as support routine peacetime operations.

e. Command, Control, and Communications (C^3) Support

Work continues on a number of improvements in the C^3 systems serving the airlift and sealift fleets. Commercial ships that would carry military cargo in a war are receiving more capable and secure communications equipment. The high frequency radios aboard long-range military transport aircraft are being upgraded. Automated planning and C^3 systems, including the Joint Deployment System, are in development. The latter systems will contain master data files and computer models for use in formulating contingency plans; in a crisis, they also would provide up-to-the-minute information to commanders making deployment decisions.

3. Conclusion

The proximity of the Soviets and their allies to several regions of critical importance to us poses enormous challenges for our projection forces. We have recognized the serious shortfalls in our capability to deploy forces and have begun a series of programs to correct them.

The procurement of additional C-5s and KC-10s, and of the new C-17, along with CRAF enhancement, will add significantly to the capability and flexibility of our airlift forces. Completion of the MPS program will enable us to deploy a division-sized Marine force very rapidly to distant theaters of conflict worldwide. The expansion of the Ready Reserve Force (RRF), coupled with continued purchases of equipment to unload ships in austere ports, will enhance our ability to deliver combat forces and materiel by sea.

The programs we have planned for the next five years will move us considerably closer to our goal of deploying major combat-ready forces to critical theaters simultaneously. While further improvements will be necessary, these programs will greatly enhance the rapid deployability of our forces and, consequently, both their deterrent and warfighting strength.

E. NUCLEAR FORCES

1. Introduction

Four years ago, the United States was faced with adverse trends in its nuclear force posture. The Soviet Union was engaged in a massive buildup and modernization of its strategic arsenal, adding new generations of missiles, bombers, and submarines at a rapid rate. U.S. strategic forces were aging, and there was increasing concern that command and control systems might not survive a nuclear strike to direct a retaliation. To halt these unfavorable trends and thus ensure that a credible deterrent could be maintained, the President announced a plan in October 1981 to modernize U.S. strategic nuclear forces and command, control, and communications (C^3) systems. Firmly linked to that plan was a proposal to negotiate substantial reductions in strategic nuclear forces with the Soviet Union.

The President's strategic modernization plan and the associated arms reduction proposal are complementary. The prospect of more modern and capable U.S. forces provides the Soviets with incentives to negotiate genuine reductions. Also, the deep cuts we seek in the destructive potential of strategic nuclear arsenals, particularly in ballistic missiles, should improve the survivability of our forces, thereby enhancing stability. Modernization and reductions are directly linked through the strategic nuclear weapons build-down proposed by the President in the START (Strategic Arms Reduction Talks) negotiations.

In the area of nonstrategic nuclear forces, the Soviet Union was several years into its SS-20 deployment program in 1981, an unprecedented buildup that has created for them a huge preponderance of intermediate-range nuclear missiles. To redress that situation, the Administration resolved to implement NATO's 1979 dual-track decision to deploy longer range intermediate-range nuclear force (LRINF) missiles in Europe while simultaneously seeking an arms treaty to limit, or even obviate the need for, such deployments.

2. Composition of U.S. Nuclear Forces

U.S. nuclear forces can be grouped into four broad categories: strategic offensive forces; strategic defensive forces; nonstrategic nuclear forces; and associated command, control, and communications (C^3) systems.

Strategic offensive forces include land-based intercontinental ballistic missiles (ICBMs); submarine-launched ballistic missiles (SLBMs); and long-range bombers armed with gravity bombs, short-range attack missiles (SRAMs), and air-launched cruise missiles (ALCMs). Maintaining three diverse types of forces -- collectively referred to as the "strategic nuclear triad" -- strengthens the capability and deterrent value of the force by compounding the problems of a potential enemy and by compensating for possible vulnerabilities in any one of the three components.

Strategic defensive forces include ground- and space-based surveillance systems and air defense forces. Surveillance systems warn of ballistic missile and bomber attacks, and identify and track objects in space. These systems contribute to deterrence by ensuring we would receive timely warning of an attack, thus reducing a potential aggressor's confidence that a surprise attack could be successfully executed. Air defense forces control access to North American airspace and provide a limited defense against bombers.

Strategic C^3 systems help assess attacks; support command functions; and provide communications linking warning sensors, command centers, and forces. Effective deterrence demands that these systems be able to function both during and after an attack.

Nonstrategic nuclear forces include intermediate-range nuclear forces (INF), such as intermediate-range missiles and tactical bombers carrying nuclear weapons; short-range nuclear forces (SNF), such as artillery projectiles and surface-to-surface missiles; land-based defensive systems, such as surface-to-air missiles and atomic demolition munitions; and sea-based systems. These forces enhance deterrence by providing the capability to respond at the lower end of the nuclear spectrum, firmly linking our strategic forces to our conventional capabilities.

3. FY 1986-90 Programs for Strategic Forces

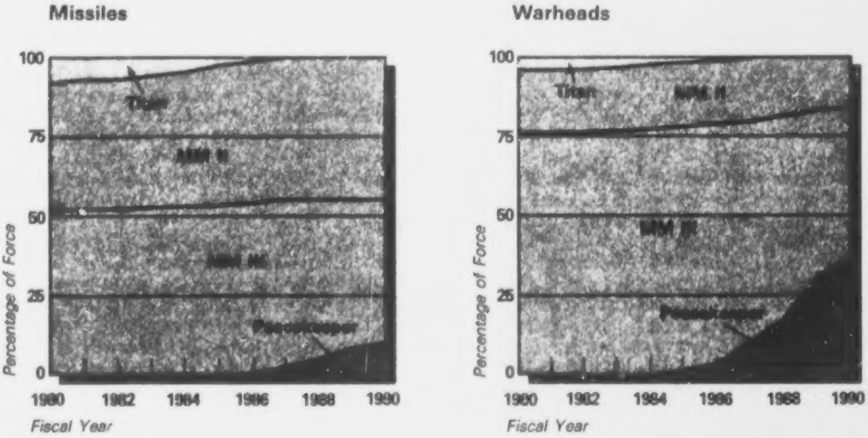
The FY 1986-90 program sustains the modernization plan directed by the President in 1981. That plan has since been expanded to include development of a small ICBM and long-term research on potential defenses against ballistic missiles.

a. Strategic Offensive Forces

(1) The Intercontinental Ballistic Missile (ICBM) Force

The inherent responsiveness of land-based missiles and their ability to put time-urgent, hardened targets at risk make them essential to effective deterrence. As part of the President's strategic modernization program, we are improving the ICBM force by building the Peacekeeper missile and developing a small ICBM. At the same time, we are maintaining and modernizing the Minuteman force and retiring the aging force of Titan IIs. Chart III.E.1 shows the projected composition of the ICBM force through FY 1990.

Chart III.E.1
ICBM Force Modernization



Peacekeeper's performance in its first six flight tests has been excellent. In line with recommendations of the Scowcroft Commission, the missile will be deployed in existing Minuteman silos beginning in late 1986. The FY 1986 budget request includes funds for continued research and development (R&D), including several flight tests, and for production of the Peacekeeper and modifications to the Minuteman silos.

Initial studies of design and basing concepts for the small ICBM are well under way. The missile will carry a single warhead and weigh less than 30,000 pounds, ensuring its compatibility with a mobile basing system. To keep missile weight down without sacrificing range or payload, we are investigating the use of new, lightweight, high-strength casing materials for the propulsion system. To achieve the desired missile accuracy, we are developing a lightweight version of the advanced inertial reference sphere, the heart of the Peacekeeper guidance system. We are also pursuing advanced-technology alternatives such as ring-laser gyroscopes and stellar inertial updates. Several mobile launcher designs are being evaluated, and initial hardness tests on subscale prototypes have yielded promising results.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Peacekeeper Missile and Basing				
Development:				
$ Millions	1,962.6	1,699.7	804.1	360.6
Construction:[a]				
$ Millions	31.2	95.7	55.8	60.5
Procurement:				
Quantity	21	21[b]	48	48
$ Millions	2,153.6	1,000.0[b]	3,180.2	2,798.3
Small ICBM and Mobile Launcher				
Development:				
$ Millions	328.3	461.5	624.5	TBD
Follow-on Basing Technology				
Development:				
$ Millions	139.0	179.6	152.2	TBD
Minuteman Modernization				
Development:				
$ Millions	4.9	4.7	31.2	95.0
Procurement:				
$ Millions	97.2	118.6	101.7	160.8

---

[a] Excludes planning and design, and family housing.

[b] In March 1985, Congress will vote on the provision of an additional $1.5 billion to procure the 21 missiles.

We are also continuing work on super-hardened silos. Recent subscale tests suggest that silos can be made many times harder than was formerly believed possible.

The small ICBM and mobile launcher will enter full-scale development in FY 1987. The FY 1986 budget request includes R&D funds for the missile, a hardened mobile launcher, and hard-silo technologies.

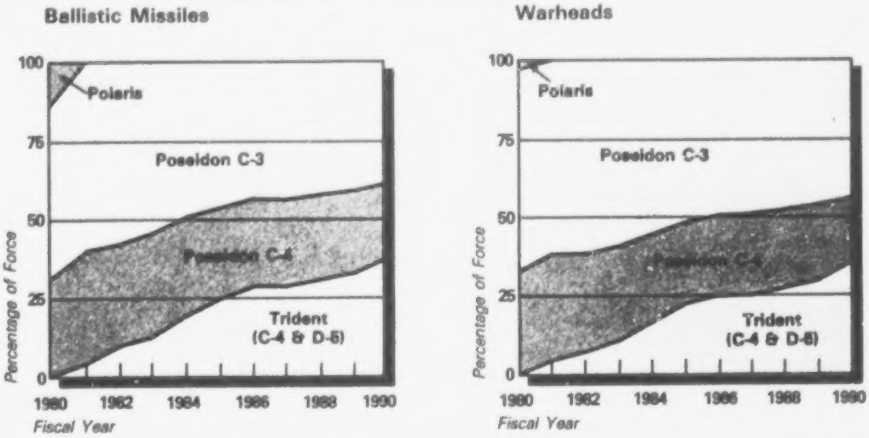
The FY 1986 program continues refurbishment of aging Minuteman components and test equipment. The program also continues to retire the obsolete Titan II force. The last of these missiles will be deactivated and dismantled in FY 1987.

(2) Sea-Based Strategic Nuclear Forces

Sea-based strategic nuclear forces consist of submarine-launched ballistic missiles (SLBMs) and the submarines that carry them (SSBNs). When at sea, they are the most survivable element of the strategic triad. Our program calls for building one new Trident SSBN per year to replace the aging Poseidon fleet, and developing and deploying the Trident II (D-5) missile. Also as part of the strategic modernization program, we are deploying Tomahawk Sea-Launched Cruise Missiles (SLCMs) on selected attack submarines and surface ships.

Sea-based forces now consist largely of Poseidon (C-3) and Trident I (C-4) missiles deployed on Poseidon submarines (see Chart III.E.2). These submarines were constructed during the 1960s. Although regularly scheduled overhauls have kept them in good condition, they will reach the end of their service lives in the mid- to late 1990s.

Chart III.E.2
Sea-Based Force Modernization



The new Trident submarine is more capable and more survivable than the Poseidon. It is faster, quieter, harder to detect, and able to spend a greater portion of its time at sea. It carries 24 missiles instead of 16, and because its missile tubes are larger than the Poseidon's, it will be able to accommodate the more effective Trident II (D-5) missile. Twelve Trident submarines have been authorized through FY 1985, and we are requesting authorization of a thirteenth in FY 1986. The first five Tridents have been delivered to the Navy, and four are now on patrol. Their performance at sea has met or exceeded design specifications, particularly in speed and quietness. The last four submarines were delivered four to seven weeks early, and follow-on ships are on schedule.

The first eight Tridents will be equipped initially with Trident I missiles. Trident IIs will be deployed on the ninth Trident submarine and all succeeding ships and will be retrofitted into the first eight. The Trident II will be able to carry a larger payload and will be more accurate than the Trident I, thus providing the SSBN force with the capability to put hard targets at risk. The missile is now in full-scale development, with initial deployment scheduled for late 1989. The FY 1985 budget included the first increment of production funding for the missile; the FY 1986 request again includes both development and production funds.

The FY 1986 request continues the SSBN Security Program, under which the Navy is examining potential threats to U.S. ballistic missile submarines and developing countermeasures, if necessary. This comprehensive research effort is reviewing all current antisubmarine warfare techniques, as well as possible technological breakthroughs for the future. The program is designed to ensure that our sea-based nuclear forces remain highly survivable.

In FY 1984, we began deploying Tomahawk nuclear SLCMs on a variety of attack submarines and surface ships. These weapons, which are effective against a wide range of land targets, give us a cost-effective means of increasing hard-target capability at sea in the near term. Because they are distributed among a large number of ships, nuclear SLCMs complicate a potential attacker's planning and improve the overall survivability of the force.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Trident Submarine				
Development:				
$ Millions	71.2	32.5	47.2	59.2
Procurement:				
Quantity	1	1	1	1
$ Millions	2,080.3	1,627.2	1,546.4	1,695.7
Trident I Missile				
Procurement:				
Quantity	52	—	—	—
$ Millions	529.0	141.1	66.2	46.8
Trident II Missile				
Development:				
$ Millions	1,473.2	2,049.0	2,165.6	1,719.8
Procurement:				
Quantity	—	—	—	27
$ Millions	—	162.9	582.0	1,865.5

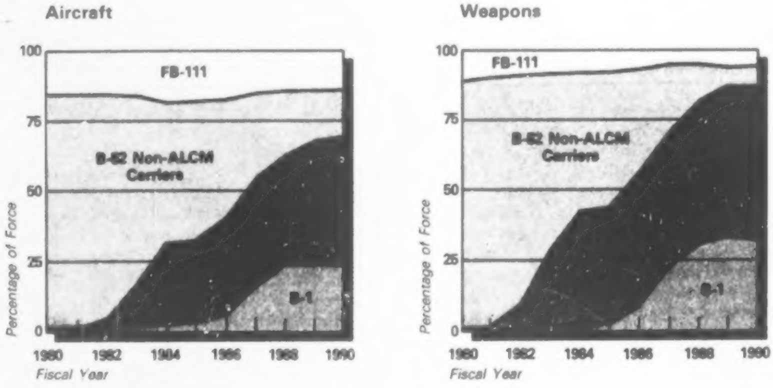
(3) The Strategic Bomber Force

Bombers are the most versatile element of the triad. They can be launched on warning of an attack for survivability but, once en route to their targets, can still be recalled or redirected. Additionally, penetrating bombers can assess target damage and retain weapons for subsequent use if a target has already been destroyed. Furthermore, they can be reloaded and used for more than one attack. In addition to their strategic nuclear capabilities, bombers can perform conventional missions. Conventionally armed bombers can attack a wide variety of targets virtually anywhere in the world. In some remote areas, they can be employed well before other conventional forces could arrive. In maritime roles, they can perform surveillance missions, attack ships, and lay mines.

At present, the bomber force consists of B-52s and FB-111s. By the end of the decade, an improving Soviet air defense system will have seriously limited the B-52's ability to penetrate Soviet airspace. The ongoing bomber modernization program is designed to ease that limitation and to maintain the deterrent capabilities of the force in the 1990s and beyond.

The program has three main elements: the installation of air-launched cruise missiles (ALCMs) on B-52s, the production of B-1B bombers, and the development of the Advanced Technology Bomber (ATB). A number of B-52s not equipped with ALCMs will be assigned conventional missions. In the 1990s, as the ATB is deployed, we plan to use FB-111s as tactical aircraft rather than as strategic bombers. Chart III.E.3 shows the proportion of bombers and bomber weapons of each type in the force from FY 1980 to FY 1990.

Chart III.E.3
Bomber Force Modernization



(a) Bomber Modernization

We have deployed ALCMs on 90 B-52Gs and will begin modifying B-52Hs for cruise missile carriage this year. ALCMs are very effective against hard targets, and they compound enemy air defense problems. Their introduction has prolonged the useful life of B-52s by allowing these older bombers to launch attacks without penetrating enemy air defenses.

A follow-on cruise missile, now in development, promises further gains in capability. This weapon, called the Advanced Cruise Missile (ACM), will have a longer range than the ALCM and will incorporate low-observable technology. The advantages of increased range are twofold: B-52s will be able to stand off farther from Soviet defenses and still put distant targets at risk, and the missile itself will be able to circumnavigate some air defenses. The low-observable design will enhance the missile's ability to penetrate highly defended areas. By anticipating evolving Soviet defenses, the ACM provides a logical and timely update to the bomber force.

Our future strategic bomber force will be composed of B-52 cruise missile carriers and modern penetrating bombers. We believe that a mixed force of this type is the best way to counter Soviet air defenses and to ensure that both fixed and movable targets can be attacked effectively.

The B-1B will be our primary penetrating bomber in the late 1980s and well into the decade of the 1990s. The program is making excellent progress. The first of 100 production aircraft came off the assembly line five months early, and the first B-1B flight test was conducted five months ahead of schedule as well. The FY 1986 request includes funds to procure the last 48 aircraft and continue flight testing.

As Soviet defenses become more formidable, we will deploy the ATB to carry out the most challenging penetrating bomber missions and transfer cruise missiles from B-52s to B-1Bs. The B-1B will continue to have a strong strategic penetrating role. Development of the ATB is proceeding at a vigorous pace toward a planned initial deployment date in the early 1990s. We expect that the aircraft, which incorporates low-observable technology, will be capable of penetrating all existing and projected Soviet air defenses into the next century.

(b) Aerial Tankers

The KC-135 tanker is essential to the effectiveness of the bomber force. Changes in mission profiles and the added weight and drag caused by carrying cruise missiles externally have increased the bombers' in-flight refueling requirements. At the same time, more aerial refueling capacity is needed for the general purpose forces, both to support fighter missions and to sustain long-range airlift operations.

Modernizing KC-135s with current-technology CFM-56 engines and other system updates -- the KC-135R program -- will increase the fleet's refueling capability by approximately 50 percent, while reducing operating and maintenance costs. With this upgrade, the fleet will be able to remain in service well into the next century. The FY 1986 request includes funds for support equipment and engines to modify 43 aircraft.

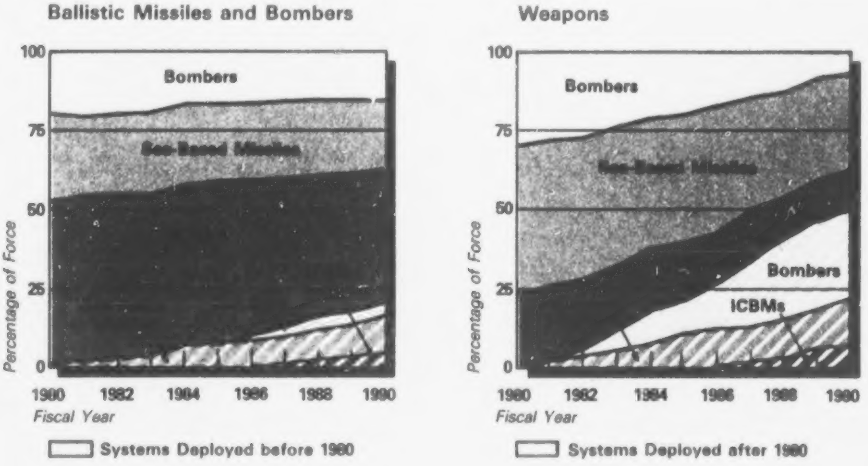
Since the KC-10 tanker is being purchased primarily to enhance conventional capabilities, it is discussed in the Force Projection chapter.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
B-52 Bomber				
Development:				
$ Millions	68.7	22.2	16.0	10.0
Procurement:				
$ Millions	460.7	466.5	463.6	795.7
B-1 Bomber				
Development:				
$ Millions	737.2	465.0	367.4	136.3
Procurement:				
Quantity	10	34	48	—
$ Millions	6,124.5	7,630.7	5,624.0	—
Air-Launched Cruise Missile				
Development:				
$ Millions	35.9	25.0	14.2	15.1
Procurement:				
Quantity	240	—	—	—
$ Millions	421.3	79.4	34.4	21.9
KC-135 Mod				
Procurement:				
$ Millions	548.2	715.1	727.4	1,039.2

(4) Force Structure Modernization

Chart III.E.4 shows the changing composition of the strategic forces during the 1980s. By FY 1990, modernized systems will constitute almost 25 percent of our operational ballistic missiles and bombers and about 50 percent of our weapons.

Chart III.E.4
Strategic Forces Modernization



b. Strategic Defensive Forces

Our program reverses the trend of declining capabilities in strategic defensive forces and C^3 systems. It calls for major improvements in air defense radars and interceptor forces. It strengthens space surveillance capabilities and pursues an operational antisatellite system. Finally, it supports a major research program for advanced defenses against ballistic missiles.

(1) Strategic Defense Initiative (SDI)

In March 1983, President Reagan took the first important step toward a new and better way to deter war, strengthen stability, and ensure peace by moving away from exclusive dependence on nuclear retaliation toward greater reliance on defensive systems. To that end, he directed the establishment of a comprehensive and intensive research program, the Strategic Defense Initiative (SDI), to find a practical means of effective defense against nuclear-armed ballistic missiles. Aimed at destroying all incoming ballistic missiles that may be used at shorter ranges as well as intercontinental distances, the program's objective is to develop a thoroughly reliable nonnuclear defense that would be able to protect our allies as well as the United States.

SDI is a major departure from ballistic missile defense programs of the past, which relied on nuclear-tipped missiles to intercept incoming warheads during their high-speed terminal plunge toward their targets. SDI is examining advanced-technology concepts that could lead to a means of intercepting ballistic missiles during their boost phase and warheads at all points along their trajectories. Warheads could be destroyed by nonnuclear means at great distances from their intended targets.

In the spring of 1984, we established the Strategic Defense Initiative Organization (SDIO) to manage this program. The SDIO provides central planning for the entire effort and uses centers of technical and management excellence within the Services, DoD, and non-DoD agencies for decentralized execution of research efforts. The program employs simplified management and is developing innovative contracting approaches to accelerate schedules and reduce costs.

Building on the FY 1985 program, the FY 1986 agenda carries forward research in five key technology areas: directed energy weapons; kinetic energy weapons; surveillance, acquisition, tracking, and kill assessment systems; battle management and command, control, and communications systems; and survivability, lethality, and support technologies. Many of these ongoing activities are already showing substantial progress. For example, last June, the Army Homing Overlay Experiment demonstrated the capability of a nonnuclear missile to intercept and destroy an incoming warhead outside the earth's atmosphere. Directed energy research devices are already operating at several laboratories. These include a neutral particle beam device at Los Alamos, and free electron and chemical laser devices at Los Alamos, Livermore, and contractor facilities. A low-cost approach to a ground-based "eximer" laser is also under study. Additionally, progress is exceeding expectations in many areas, including railgun technologies as well as sensors and cryogenic refrigeration devices.

Defensive technologies are currently at different stages of maturity. The FY 1986 request continues research on rapidly maturing technologies and also emphasizes less developed technologies that hold great promise for more effective systems. The request also supports smaller, additional research efforts involving innovative concepts that may offer the potential for very large gains in cost-effectiveness and an inherent ability to overcome potential Soviet countermeasures. Each SDI budget request will support research on technologies at various levels of maturity so as to provide the basis for a continually improving ballistic missile defense potential.

The SDI demonstrates to our friends and to any potential adversaries that America is firmly committed to the President's goal of a thoroughly reliable defense for the United States and its allies. Demonstration of our resolve will be as vital as technical progress on the SDI program to ensure that the Soviet Union realizes that the best choice for it as well as for us is to move to the enhanced security and more optimistic future of a deterrent in which defenses play a central role. As nuclear ballistic missiles increasingly lose their military value and their capability to destroy our respective societies, we can move together to eliminate these weapons.

The Strategic Defense Initiative offers the world more hope than any concept developed since the nuclear era began. We owe it to ourselves and to the world to pursue it until it is achieved in full.

(2) Air Defense

For many years, ballistic missiles have been the mainstay of the Soviet strategic arsenal. As a consequence, relatively low priority was attached to improving our air defense systems. Today, however, the Soviets are developing a new bomber and are beginning to deploy long-range cruise missiles. In light of this increased threat, and to correct deficiencies in our bomber warning systems, we are deploying new ground-based surveillance radars and modern interceptors.

(a) Surveillance Systems

To improve atmospheric surveillance of the eastern, western, and southern approaches to the continental United States, we are deploying a network of Over-the-Horizon Backscatter (OTH-B) radars. These radars will be able to identify incoming bombers hundreds of miles away at any altitude. Funds for the last 60° sector of the east coast segment of the network were authorized in FY 1985. The FY 1986 request seeks funds for the first two of the three sectors to be installed on the west coast.

For surveillance of the northern approaches to the continent, we plan to install modern microwave radars across northern Alaska and Canada. The new radars, known as the North Warning System, will fill gaps in existing coverage, enable us to detect low-flying aircraft, and be cheaper to maintain than the present system. Procurement of 13 long-range radars for this system will be completed in FY 1985. Funds requested in FY 1986 will continue development of a short-range radar, 39 of which will ultimately be deployed between the long-range radars.

(b) Interceptor Forces

Fifteen interceptor squadrons maintain a ground alert at sites around the periphery of the 48 contiguous states. The primary mission of these aircraft is to intercept and identify unknown intruders into North American airspace. The aircraft also could provide a limited defense against bomber attacks.

By FY 1986, four active interceptor squadrons will have been modernized with F-15 aircraft. Pending congressional approval, the remaining active squadron, at K.I. Sawyer Air Force Base in Michigan, will be deactivated. Its air defense responsibilities will be assumed by the Air National Guard squadron at Duluth, Minnesota. This will result in an air defense force composed of four active and eleven Air National Guard squadrons.

(3) Space Defense

The antisatellite (ASAT) program is central to our efforts to improve defensive capabilities in space. Our vigorous pursuit of this capability is motivated by the desire both to deter the Soviets from using their ASAT weapons, which are already operational, and to deny them the unrestricted use of space to support operations against U.S. forces in wartime.

The current U.S. ASAT program consists of a missile launched by specially equipped F-15 tactical aircraft. The missile, referred to as the air-launched miniature vehicle (ALMV), would be targeted against low-altitude satellites.

Our first test of the ALMV successfully demonstrated the capability to guide the missile to a point in space. We have recently tested the missile's sensor and will conduct subsequent tests consistent with congressional direction. The test and evaluation phase of the ASAT program is scheduled for completion in FY 1987. We are requesting funds in FY 1986 to continue production of the missile and to complete work on support facilities at Langley Air Force Base, Virginia. We must caution that congressionally imposed restrictions or prohibitions against further tests would adversely affect the prompt development of this needed capability.

To help defend U.S. space-based systems and to monitor hostile space weapons and satellites, we are deploying a worldwide network of five ground-based electro-optical surveillance sensors. These sensors, which complement existing radars, are designed to detect, track, and identify objects in deep space. Three of the sensors are already operational, and a fourth will be completed in FY 1987. The schedule calls for construction of the remaining site to begin in FY 1986 and for the entire system to be operational in FY 1988.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Stategic Defense Initiative				
Development: $ Millions	50.0	1,397.3	3,722.2	4,908.3
Air Defense				
Development: $ Millions	123.7	106.9	108.4	51.0
Procurement: $ Millions	173.8	164.8	245.9	256.9
Space Defense				
Development: $ Millions	202.7	133.0	149.9	80.4
Procurement: $ Millions	19.3	74.0	97.9	148.9

c. Strategic Command, Control, and Communications (C^3)

Strategic C^3 systems must be capable of supporting an initial U.S. retaliation against a nuclear attack; they also are essential to the effective management of nuclear reserve forces. The FY 1986-90 program will correct most of the deficiencies in strategic C^3 capabilities that were identified at the outset of this Administration. The program will upgrade and augment existing capabilities, increase the survivability of C^3 systems, protect them against nuclear effects, and provide redundant communications and control.

(1) Missile Warning and Attack Assessment Sensors

We maintain satellites and ground-based radars to warn of ballistic missile attacks. The satellite would provide the first indication that an attack was under way, and radars would confirm the satellite warning data. This information must be both prompt and accurate. Early warning is essential to the survivability of bombers and C^3 systems on ground alert, and to give the President time to consider retaliatory options. Accurate information on the size and scope of an attack would be needed in order to select an appropriate response and to control escalation. Ongoing programs to modernize and augment the warning systems now in service will enhance their ability to provide timely information about an impending attack.

(a) Satellite Early Warning System

Early warning satellites detect ICBM and SLBM launches. The satellites now in operation will soon be replaced by new models with improved survivability and performance features.

(b) PAVE PAWS

The PAVE PAWS radar system would confirm satellite warning of an SLBM attack. Two of these phased-array radars are now operating on our eastern and western coasts, where they monitor regular Soviet SSBN operating areas. In 1981, we decided to deploy two additional

PAVE PAWS radars in Georgia and Texas to expand coverage to the southeast and southwest of our borders. We are requesting funds in FY 1986 to continue construction of these two sites, both of which are scheduled to be activated by FY 1987. The aging FPS-85 and FSS-7 radars in Florida will remain in service until all four PAVE PAWS radars are operational. The Perimeter Acquisition Radar Characterization System (PARCS), a phased-array radar in North Dakota, completes our network of SLBM warning radars and complements the system used to confirm ICBM attacks.

(c) Ballistic Missile Early Warning System (BMEWS)

BMEWS radars at sites in Greenland, Alaska, and England would confirm satellite warning of an ICBM attack. To improve BMEWS' coverage and performance, we are replacing obsolete radars at two sites with new phased-array systems similar to PAVE PAWS. In FY 1986, we will complete the installation of a new radar at Thule, Greenland, and begin a major upgrade of the Fylingdales, England, site. The radars now in operation at these locations are expensive to maintain and are inadequate against an evolving threat (e.g., they would have difficulty distinguishing large numbers of targets with small radar cross sections). In addition to its ICBM-related duties, the new Fylingdales radar will improve warning of missile attacks against NATO territory and of SLBM attacks against the United States, while enhancing surveillance of objects in space.

(d) Nuclear Detonation Detection System (NDS)

The NDS, also known as the Integrated Operational Nuclear Detonation System (IONDS), will enhance our ability to detect and pinpoint the location of nuclear detonations worldwide. The system is being installed on the satellites of the Navstar Global Positioning System (GPS). In a nuclear war, it would help determine which targets had been destroyed; in peacetime, it will contribute to nuclear test ban monitoring. The FY 1986 program continues the installation of the sensors into the host satellites. The entire system will be operational in the late 1980s.

(2) Command Centers

Should deterrence fail, survivable command centers are needed to ensure that our retaliatory forces could be employed effectively and remain responsive to national authority both during and after a nuclear attack. To ensure that we could take full advantage of our most capable command posts during the early stages of an attack, we are upgrading the National Military Command Center (NMCC) and the Alternate NMCC. The modifications include protecting electronic equipment against electromagnetic pulse (EMP) effects,[1] and installing uninterruptible power systems and more advanced data-processing equipment. We expect to complete these improvements in FY 1986.

Airborne command centers, which are more likely to survive a nuclear attack, will benefit from similar improvements. By FY 1986, all four EMP-hardened E-4B aircraft serving as National Emergency

---

[1] The surges of current caused by the EMP effects of a nuclear detonation could damage many types of electronic equipment that had not been adequately hardened.

Airborne Command Posts will be operational, with improved data-processing equipment aboard. We are also installing additional communications equipment on the aircraft to provide redundant, jam-resistant links to forces and surveillance systems.

The EC-135 fleet, which serves the Commander in Chief of the Strategic Air Command and other nuclear force commanders, also is being fitted with improved communications gear. Obsolete UHF radios are being replaced with modern EMP-hardened equipment. The first of the new radios will be installed in FY 1986, and we plan for the entire program to be completed in FY 1990.

(3) Communications

Communications systems connect warning sensors to command centers, enable information to be exchanged among command centers, and link commanders with their forces. Although ensuring that the forces would receive initial retaliatory orders remains our first priority, we are also working to provide them with two-way communications channels.

(a) Satellite Communications Systems

The Air Force Satellite Communications (AFSATCOM) system, which became fully operational in FY 1984, provides low-data-rate communications links to our strategic nuclear forces worldwide. AFSATCOM terminals are widely distributed among the forces and command centers, and AFSATCOM transponders are deployed on several satellites, including those of the Defense Satellite Communication System (DSCS).

The new DSCS III satellites provide high-data-rate communications, serving strategic forces as well as many other government users. Missile warning data, for example, would be transmitted from sensors to command centers via DSCS III. Also, E-4B command posts will be able to use the system to transmit messages to nuclear forces. DSCS III satellites are better protected against nuclear effects than the DSCS II satellites they replace, and they are more jam-resistant. The second DSCS III satellite is scheduled to be launched in the near future, and the full system will be operational a few years later.

The Milstar satellite communications system would ensure effective, continuous control of strategic forces both during and after a nuclear attack. These satellites will use extremely high frequency communications, which are even less susceptible to the effects of nuclear detonations and jamming than are the frequencies used by DSCS III. To ensure their continued availability, Milstar satellites will also incorporate a variety of survivability features. Milstar terminals will allow two-way communications between commanders and their forces, thereby increasing force effectiveness. We are requesting funds in FY 1986 to start construction of the third satellite and to continue development of the terminals.

(b) Ground Wave Emergency Network (GWEN)

The GWEN system will consist of a network of EMP-hardened radio relay stations distributed across the country. The program is proceeding in two phases. The first phase is designed to increase our confidence that bombers would receive timely warning of a nuclear attack. Initial operational testing and evaluation for this phase will be completed in FY 1986. During the second phase, we will be adding substantially more transmitters and receivers, thereby increasing the system's survivability and giving us an alternate link to the ICBM force. Funds to begin that portion of the program are requested in FY 1986. We expect to have the entire system in place by the end of the decade.

(c) Miniature Receiver Terminal (MRT)

Equipping strategic bombers with miniature terminals for receiving very low frequency (VLF) communications will improve our ability to communicate with them in flight during the early stages of a nuclear attack. Though slower than transmissions in the higher frequency bands, VLF communications can be transmitted over much greater distances than can line-of-sight communications, and they are much less susceptible to nuclear effects than are existing satellite communications to bombers. We plan to continue development of the MRT system with funds requested in FY 1986 and to begin producing the terminals in FY 1987.

(d) TACAMO E-6A Aircraft

To communicate with its deployed ballistic missile submarines, the Navy keeps TACAMO radio-relay aircraft continuously airborne over the Atlantic and the Pacific. In a nuclear war, these aircraft would ensure that commanders could send messages to SSBNs, even if ground-based transmitters were destroyed. Over the next several years, we plan to replace the EC-130s (modified C-130 transports) currently flying the TACAMO mission with a new aircraft, the E-6A (a derivative of the Boeing 707). A faster and longer-range plane than the EC-130, the E-6A will be able to operate over vast expanses of the ocean, thus ensuring that SSBNs deployed in remote ocean areas will receive messages in a timely fashion. In FY 1986, we expect to complete work on a prototype version of the aircraft. Plans call for building a fleet of 15 E-6As at a rate sufficient to deploy a Pacific squadron by FY 1990 and an Atlantic squadron by FY 1992. The aircraft will be outfitted initially with communications equipment transferred from EC-130s. To provide greater protection against electronic jamming and nuclear effects, we plan to replace this equipment with a modern communications suite early in the next decade. The FY 1986 request supports continued development of the upgraded TACAMO communications gear.

(e) Extremely Low Frequency (ELF) Communications

To upgrade peacetime communications to deployed submarines and to support the transition to wartime operations, we are constructing a dual-site, extremely low frequency (ELF) communications system. Submerged submarines must now deploy an antenna at or close to the ocean's surface to receive messages, thus potentially increasing their susceptibility to detection. This constraint will be alleviated by the use of ELF communications, which can penetrate sea water to much greater depths. The two transmitter sites, in Wisconsin and northern Michigan, will operate in electrical synchronism, thereby providing a highly reliable means of maintaining continuous contact with the submarine force. To achieve an initial operational capability in FY 1986, we are requesting funds to complete construction of both sites and to begin installing receivers in submarines.

	FY 1984 Actual Funding	FY 1985 Planned Funding	FY 1986 Proposed Funding	FY 1987 Proposed for Authorization
Stategic Surveillance and Warning				
Development: $ Millions	139.8	137.9	147.2	156.8
Procurement: $ Millions	617.6	382.4	515.1	874.5
Stategic Command Centers				
Development: $ Millions	130.7	294.0	282.7	279.0
Procurement: $ Millions	8.4	59.8	69.3	155.5
Strategic Communications				
Development: $ Millions	801.1	914.0	953.5	1,058.7
Procurement: $ Millions	249.1	54.7	539.3	740.3

4. FY 1986-90 Programs for Nonstrategic Nuclear Forces

Our highest priority for the nonstrategic nuclear forces continues to be the implementation of NATO's 1979 dual-track decision on longer range INF missiles. This step alone, however, will not provide the diverse set of modern nuclear forces needed to maintain effective deterrence in Europe and worldwide. Accordingly, we are also continuing to modernize our inventories of tactical nuclear bombs, nuclear artillery, and sea-based missiles. Concurrently, we are enhancing the safety, security, and survivability of our nuclear weapons systems. Finally, as with the strategic forces, we are improving the C^3 systems that support our nonstrategic nuclear forces.

a. Longer Range INF Missiles

In accordance with NATO's 1979 decision, we began deliveries of Pershing II ballistic missiles to the Federal Republic of Germany, and of ground-launched cruise missiles (GLCMs) to the United Kingdom and Italy, at the end of 1983. Follow-on deployments to those countries, and GLCM deployments to Belgium, Germany, and the Netherlands, are planned over the next several years. All 464 GLCMs and 108 Pershing IIs are scheduled to be deployed in Europe by the end of 1988. The FY 1986 request includes funds to complete Pershing II procurement and to produce additional GLCMs. GLCM procurement will be completed in FY 1987.

As we proceed with these deployments, we remain committed to the arms control track of the 1979 decision. All of the deployments are subject to modification, cancellation, or reversal if an agreement with the Soviet Union is achieved. We have repeatedly expressed our readiness to resume immediately the negotiations broken off by the Soviets in November 1983. We are pleased that the Soviet Union has now agreed to begin new talks on these weapons in the near future.

b. Short-Range Nuclear Forces

Effective short-range battlefield nuclear systems serve multiple purposes. Not only do they deter Soviet first use of comparable systems, they enhance the effectiveness of our conventional defenses. The latter effect results primarily because the threat of these weapons would force the Warsaw Pact to disperse its forces and develop multiple lines of communications, thus blunting the full potential of their conventional offensive capability.

To ensure that our battlefield nuclear systems remain effective, we are replacing our aging stocks of artillery-fired atomic projectiles (AFAPs). A new eight-inch round, the W79, is being produced as a replacement for the W33. Similarly, a new 155mm AFAP, the W82, is planned to replace the W48. Each new round offers significant improvements in range, accuracy, safety, and security. Deployment of both takes full advantage of NATO's artillery force structure, thereby increasing the survivability and flexibility of its short-range nuclear forces. Due to the greater effectiveness of the new rounds, the older ones can be replaced on less than a one-for-one basis.

All DoD funds required for the W79 program have already been appropriated. Consistent with congressional direction, rounds produced from FY 1985 on will not have an enhanced radiation capability. The FY 1986 request includes funds for continued development of the W82.

c. INF Aircraft

For nuclear air attack missions, NATO relies on a variety of dual-capable aircraft. The inventory is currently being modernized with F-16 and Tornado fighter-bombers. As part of that effort, we are deploying new tactical bombs with improved capabilities and enhanced safety and security features.

d. Sea-Based Systems

The five-year program sustains a general modernization of our nonstrategic nuclear forces at sea. Central to that effort is the development of a nuclear warhead for the SM-2 surface-to-air missile. We anticipate requesting long-lead procurement funds in FY 1987 to support an initial deployment date in the early to mid-1990s. We also are developing a nuclear capability for the new submarine-launched Antisubmarine Warfare Standoff Weapon and are considering a nuclear warhead for both the surface ship-launched Vertical Launch Antisubmarine Rocket and a new air-delivered depth bomb.

e. C^3 Systems

Two new communications networks are being installed for our nonstrategic nuclear forces in Europe. The networks will provide critically needed improvements in security, reliability, and performance. The first, a UHF satellite communications system, will link the headquarters of the European Command with its deployed forces. The teletype communications terminals are now being fielded, and we expect the system to be completed in FY 1987. The second new network will be a high frequency (HF) system. It is designed to provide reliable and secure communications channels that are highly resistant to electronic jamming and that could withstand the EMP effects of a nuclear blast. We will be testing the terminals for this system in FY 1985, and plan to begin full-scale production in FY 1986. The entire network will be deployed by the end of FY 1989. A similar HF system is planned to support nonstrategic nuclear forces assigned to the Pacific Command.

5. Conclusion

As President Reagan's strategic modernization plan and NATO's intermediate-range nuclear force modernization plans begin to reach fruition, we are restoring the capability necessary to maintain a credible and stable deterrent. Our continuing efforts to implement these plans remain firmly linked to our goal of genuine and verifiable arms reductions. Together, modernization and arms reductions will ensure a safer and saner world for us and for future generations.

F. COALITION STRATEGY — REGIONAL SECURITY

1. Introduction

Upon taking office in January 1981, this Administration faced three trends with urgent implications for international peace and security:

-- A general, decade-long decline in Western strength that had gradually eroded the U.S. margin of military safety and that of our allies.

-- The increasing interdependence of the West and the developing countries, many of which, because of their fragile economic conditions, had become targets for Soviet-sponsored destabilization.

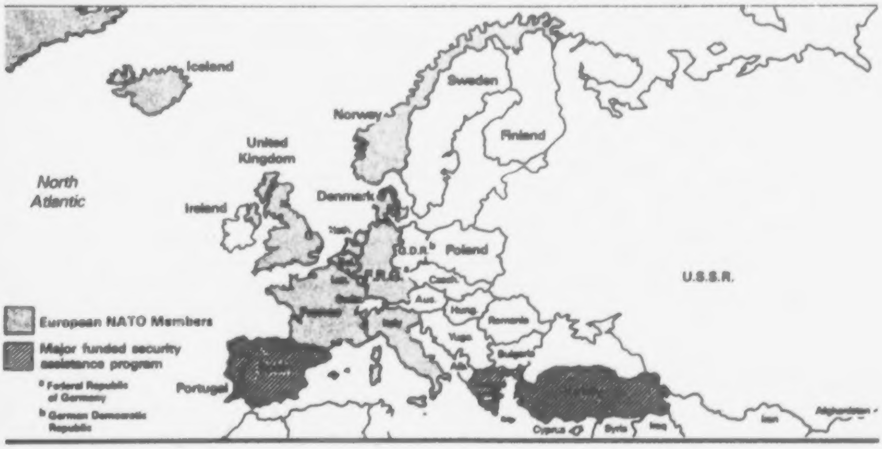
-- The emergence of the Soviet Union as a global military power, increasingly willing to use its might to promote violence in areas of strategic significance to the West.

Our response to these challenges recognizes that the United States cannot itself provide all of the manpower and weapons necessary to deter aggression worldwide. Hence, we have adopted a coalition strategy linking improvements in the U.S. defense posture with an expanded program of economic and military assistance and renewed attention to the vitality of America's alliances and security relationships with other friendly nations. This chapter describes the U.S. forces, commands, and defense programs contributing to this coalition strategy.

2. Western Europe/North Atlantic Treaty Organization (NATO)

Chart III.F.1

Western Europe


Iceland
Sweden
Norway
Finland
United Kingdom
North Atlantic
Ireland
Denmark
Neth.
G.D.R.b
Poland
F.R.G.a
Lux.
Belg.
France
Czech.
U.S.S.R.
Aus.
Hung.
Romania
Italy
Yugo.
Bulgaria
Alb.
Portugal
Cyprus
Syria
Iraq
Iran
Afghanistan
European NATO Members
Major funded security assistance program
a Federal Republic of Germany
b German Democratic Republic

NATO continues to provide an indispensable framework for maintaining the peace in this critical geostrategic region. Its cooperative security arrangements have served us and our allies very well. The strength and resilience of the Alliance have most recently been demonstrated in its emplacement of intermediate-range nuclear weapons, after having attempted to reach an arms control agreement with the Soviets that would have rendered such deployments unnecessary.

NATO's strategy is one of deterrence based on a capability for defense at all possible levels of conflict. That strategy, adopted in 1967, calls for forward defense and for flexibility in response. While NATO is maintaining and improving its nuclear capabilities under approved programs, it is widely agreed that the Alliance needs to strengthen its conventional defenses. This will help achieve an effective mix of conventional and nuclear capabilities, which would neither force NATO to early nuclear use from conventional weakness nor preclude such use should the Alliance so choose.

a. U.S. Forces for NATO

Under existing arrangements, most forces in Europe -- including those of the United States -- remain under national command in peacetime. In an emergency or war, the forces would be integrated into the NATO command.

U.S. forces stationed in Europe include four Army divisions, two brigades of U.S.-based divisions, and two armored cavalry regiments, along with 28 Air Force tactical air squadrons.[1] Those forces would be heavily augmented in a crisis. Our goal is to be able to field a total of 10 Army divisions, 88 Air Force squadrons, and one Marine Amphibious Brigade within 10 days of a decision to mobilize. To achieve that capability, additional improvements are needed in U.S. materiel prepositioning and lift programs, as well as in European reception and support facilities. Further reinforcements, both ground and air, would follow as readiness and transport availability permit.

U.S. naval forces for NATO include the Second Fleet in the Atlantic and the Sixth Fleet in the Mediterranean. These, too, would be reinforced in an emergency to the extent permitted by commitments elsewhere.

This Administration opposes any ceiling on, or reduction in, U.S. troop strength in Europe. We believe that such limitations unduly restrict operational commanders' flexibility and may produce an effect precisely opposite to that which is desired. They could also tempt our allies to make similar reductions in their force levels. Furthermore, by delaying needed modernization programs, cutbacks in U.S. manpower levels in Europe might send a signal of a weakening of the United States' commitment to NATO, unraveling the Alliance-wide consensus on conventional force improvements. Therefore, it is with great reluctance that, at the insistence of the Congress, we have reduced our planned FY 1986 increase in European end strength by about 3,500 spaces so as to remain within the congressionally imposed limit of 326,414 troops.

---

[1] In addition, the United States maintains a separate brigade in Berlin that is not committed to NATO.

b. NATO Nuclear Planning

NATO's Nuclear Planning Group (NPG) is responsible for coordinating matters involving NATO's nuclear forces. At present, all members of the Alliance except Iceland and France are represented on the NPG and one of its subsidiaries for special projects, the High Level Group (HLG).

The HLG prepared the analyses and recommendations that led to NATO's December 1979 decision to deploy Pershing II missiles and ground-launched cruise missiles (GLCMs). A separate group, the Special Consultative Group (SCG), set up under the North Atlantic Council, laid the groundwork for the other half of the two-part December 1979 decision -- the commitment to seek, through negotiations with the Soviet Union, limitations on those missiles. The HLG also conducted the study of the Alliance's nuclear needs that led to the October 1983 decision by NATO defense ministers to withdraw 1,400 nuclear weapons from Europe. That study also identified a number of areas in which improvements in the Alliance's nuclear posture would help maintain the future deterrent capabilities of its nuclear forces. (U.S. initiatives and programs in support of NATO's modernization and arms control goals are discussed in Part 1 and in the Nuclear Forces chapter of this report.)

c. Improving NATO's Conventional Defense Capability

The continued growth of Soviet and Warsaw Pact nuclear and conventional capabilities has increased NATO's requirements for flexible and measured responses to aggression, thus placing a heavy burden on its conventional forces. There is an Alliance-wide consensus that NATO's conventional defenses need to be upgraded, and a number of programs have been directed toward that end. Improved facilities for conventional forces are being planned by the NATO Infrastructure Committee, operating under its newly adopted six-year financial ceiling. The Conference of National Armaments Directors (CNAD) is working to improve cooperation in the acquisition of weapons, particularly those involving emerging technologies. The Senior National Logisticians Conference (SNLC) is examining ways to strengthen cooperation in the area of logistics, with special emphasis on war reserve munitions stocks, wartime host nation support, and other logistical aspects of rapid reinforcement. The NATO Air Defense Committee (NADC) is developing plans and priorities for improving air defense systems and procedures, while the Senior Civil Emergency Planning Committee is looking at ways to improve transportation services and reception facilities for reinforcements. The NATO Joint Communications-Electronics Committee (NJCEC) is working to improve the performance and interoperability of communications networks and command and control systems. Under the auspices of the Military Committee (MC), the Major NATO Commanders (MNCs) are working closely with national authorities to refine the Alliance's conventional force doctrines and tactics. The MNCs test these procedures during regularly scheduled exercises.

In order to encourage adequate national funding for these improvement efforts, NATO is developing a "conceptual military framework" against which questions of priority can be addressed. It is also drawing up a defense resources strategy to guide national efforts in the mid- and longer term.

d. NATO Cost-Shared Infrastructure

Under the NATO Infrastructure program, Alliance members share the costs of constructing facilities for the use of their forces in a war. Thirteen NATO nations contribute to the full Infrastructure program. France joins the common funding for air defense warning installations, bringing the contributors in this area to fourteen. (Iceland has no military forces and thus is not involved; Spain does not participate in the Infrastructure program at this time.) This burdensharing effort contributes enormously to the effectiveness of NATO's conventional forces. Over the years, however, the Infrastructure program has fallen far short of satisfying the burgeoning needs for modern facilities to support the Alliance's forces and command network.

That situation should soon begin to change, owing to the sharply increased six-year ceiling of nearly $8 billion adopted last December. The additional funding will hasten the deployment of new units and weapon systems and the provision of facilities needed to support ground and air reinforcements. These latter programs in particular will go a long way toward overcoming the shortfalls at the collocated operating bases from which our reinforcement aircraft would operate. Over 70 percent of the required airfield improvements will be undertaken during the next six years, including construction of 60 percent of the shelters needed to protect our combat aircraft.

The NATO countries benefit economically from the Infrastructure program in several ways: general economic benefits accrue to host countries from peacetime maintenance and operations, as well as from the construction of new installations; all member countries compete for commercial contracts for construction and related goods and services; and the user nations benefit from allied contributions to facilities that their forces will use. While the United States contributes 27.8 percent of total Infrastructure funding, a full 35 to 40 percent of the projects programmed annually are in direct support of U.S. forces.

The Infrastructure program funds only those facilities needed for wartime operations. Personnel support facilities and other projects serving predominantly peacetime needs are funded by each country, according to its own standards. Were such construction to fall under common funding, the United States' share of all such projects would far exceed the amount of U.S. military construction (MILCON) funds needed just for our European programs. Therefore, we do not favor such a broadening of NATO Infrastructure coverage.

e. Wartime Host Nation Support (WHNS)

The European allies would provide a substantial amount of logistical support for U.S. ground and air units in a NATO reinforcement, particularly during the early stages. These services, furnished under what are known as "wartime host nation support" agreements, range from the provision of rail and highway transportation, materiel handling, and equipment transshipment to the evacuation of casualties and protection of critical installations and facilities. Civilian resources would be used to the maximum extent possible in carrying out these functions. Comprehensive joint logistics plans have been prepared with the Benelux countries and the United Kingdom, and are in progress with Norway, Italy, and Turkey. To facilitate the implementation of these plans, U.S. logistics coordination cells have been assigned to the military staffs of several countries.

The WHNS agreement signed with the Federal Republic of Germany in April 1982 deserves special mention. Besides providing for the use of various civilian resources by U.S. forces during a crisis or war, it calls for the activation of a 93,000-man German reserve force charged solely with supporting U.S. forces. The initial combat support and combat service support units have already been formed, and the entire force will be activated by the end of 1989.

f. Prepositioning of Materiel Configured to Unit Sets (POMCUS)

The storage of U.S. equipment at POMCUS sites in Europe is critical to our ability to reinforce NATO promptly in a crisis. This is the least expensive and, indeed, the only practical way to ensure a ten-division U.S. force at D-Day. The POMCUS program also provides a concrete example of allied burdensharing, since most of the facilities are commonly funded under the Infrastructure program.

The Belgians and the Dutch have expended considerable political capital and materiel resources to provide the land and certain supporting facilities for the POMCUS sites in their countries, which will house equipment for Division Sets 5 and 6. One of the sites in the Netherlands was completed in the spring of 1984 and is now being stocked. Two additional sites in the Netherlands were completed in the fall of 1984, while the remaining sites there and in Belgium will be ready for occupancy by mid-1985.

Mindful of congressional restrictions against stocking equipment for which the active Army has less than 70 percent of its authorized levels, or the Reserve Components less than 50 percent of their requirements, U.S. planners are working to ensure that the POMCUS facilities are filled as soon as inventory levels permit. As the program reaches completion, intertheater airlift requirements (for residual equipment) will be significantly reduced, thus increasing our ability to deploy combat-ready reinforcements.

g. NATO Arms Cooperation

DoD has taken steps to foster allied cooperation in the development, production, and procurement of armaments. The Deputy Secretary of Defense has organized a senior group to oversee efforts to achieve increased cooperation and to protect NATO technology against illegal or unauthorized release. The work of this group on programs involving emerging technologies is especially important.

The NATO Conference of National Armaments Directors is also taking a direct interest in the progress of the emerging technologies program. DoD is supporting that effort by continuing to seek multilateral and bilateral agreements with allied nations on such projects. Increased cooperation in armaments programs has the potential of permitting more efficient use of national resources if we can eliminate the obstacles that stand in the way.

h. Security Assistance

Security assistance and arms sales programs with the NATO nations continue to be essential in bringing the full availability of otherwise restricted national resources to Western defense. U.S. security assistance takes four forms: Foreign Military Sales (FMS) credits, grants under the Military Assistance Program (MAP) and the International Military Education and Training (IMET) program, and economic aid provided via Economic Support Funds (the ESF program).

The FY 1986 request is summarized in Table III.F.1. Again this year, the major European recipients of U.S. security assistance will be Turkey, Greece, Spain, and Portugal. The program also continues the mutually beneficial arrangements under which our other NATO allies acquire U.S. defense articles and services on a cash basis through the FMS program or commercial channels.

Table III.F.1

Major Funded Programs, FY 1986

(Dollars in Millions)

Country	FMS Credits	Map Grants	International Military Education and Training Program	Economic Support Funds
Greece	500	–	1.75	–
Portugal	65	70	3.00	80
Spain	400	–	3.00	12
Turkey	555	230	4.00	150

i. Burdensharing

Alliance defense policy and military strategy posit a fair sharing among the member nations of both the risks and burdens of deterrence and defense. The success of the Alliance in preserving peace and freedom for its members over the past 35 years testifies to the sense of common purpose and interdependence that link the nations of Western Europe to each other and to North America. Recognizing that this sense of mutual commitment is by far the most critical ingredient of security, NATO governments have made a determined effort to preserve the momentum of their defense programs even in the face of adverse and discouraging developments. This is not to minimize the troubling fact that real increases in allied defense spending have run well below ours for the past few years. But account must be taken of political and economic imperatives in Europe as well as in this country.

Nevertheless, we believe the record shows that our European allies are doing more for the common defense, broadly defined, than they are often given credit for. Last year, the average real growth in defense spending for the non-U.S. NATO allies combined was approximately 3 percent. And in December 1984, the allies agreed to strive to continue to make the necessary resources available and to optimize the use of resources to improve NATO's conventional defense capability.

We will continue to urge our allies to accept a greater share of the common defense burden. In doing so, it is essential that the

United States continue to make a full contribution to NATO's collective defense effort.

3. Southwest Asia and the Middle East

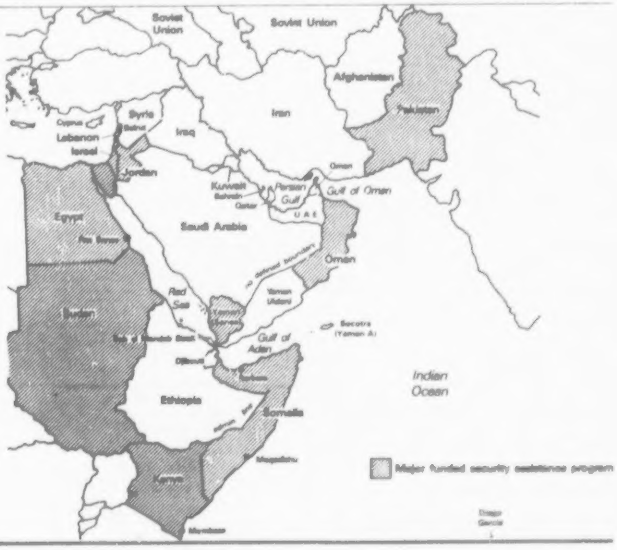
Political and military instabilities in Southwest Asia (SWA) and the Middle East continue to pose complex and dynamic challenges for U.S. defense planning. In response, President Reagan has steadfastly reaffirmed our commitment to protect U.S. and free world interests in the region, especially the pursuit of a lasting Arab-Israeli peace and continued access to Persian Gulf oil.

Over the past several years, we have improved our military capabilities for the region, primarily by enhancing the readiness and mobility of existing forces. Our plans, programs, and command structure for SWA and the Middle East have now begun to mature and provide us with a broad range of capabilities in those areas. Furthermore, they continue to be the mainstay of a larger effort to revitalize our worldwide rapid-response capabilities.

a. The Region and Potential Conflicts

Chart III.F.2 depicts the general areas we refer to as Southwest Asia and the Middle East.

Chart III.F.2
Southwest Asia and the Middle East


Soviet Union
Soviet Union
Afghanistan
Pakistan
Iran
Cyprus
Syria
Beirut
Lebanon
Israel
Iraq
Jordan
Oman
Kuwait
Bahrain
Qatar
Persian Gulf
Gulf of Oman
U A E
Egypt
Ras Banas
Saudi Arabia
no defined boundary
Oman
Red Sea
Yemen (Sanaa)
Yemen (Aden)
Socotra (Yemen A)
Sudan
Bab el Mandeb Strait
Gulf of Aden
Djibouti
Berbera
Ethiopia
Somalia
Indian Ocean
Mogadishu
Kenya
Mombasa
Diego Garcia
▨ Major funded security assistance program

(1) Southwest Asia

It is our policy to support the independence and territorial integrity of friendly countries in this politically unstable region and to prevent a further spread or deepening of Soviet influence. In addition, the free world relies on SWA for one-third of its oil supply, making the area vital to the economic interests of the United States and, especially, its allies.

Although SWA is the focus of our rapid deployment planning, we currently have no agreements to station combat forces permanently ashore in the area and maintain only a limited sea-based presence there. Furthermore, political conditions and agreements with friends and allies near the region, in Europe, and elsewhere along vital lines of communications influence the availability of transit facilities needed to support our rapid deployment strategy. As a result, many of our programs emphasize mobility and access to countries en route to or near SWA.

Some of these programs have been completed, and many more are beginning to take effect. They have been very timely, and we have been able to use our new capabilities to support requests for assistance from several regional nations. For example, during the past several years, we have deployed AWACS aircraft to Saudi Arabia, supported the Sudan in response to threats emanating from Libya, and assisted Egypt to prepare against potential aggression, again from Libya. More recently, in response to regional concerns about the escalation of the Iran-Iraq war, we expanded our security cooperation with the governments of several Persian Gulf states. Most recently, in response to a request from the Egyptian government, we participated in multinational efforts to clear mines from international shipping lanes in the Red Sea.

Our programs for the region must offer capabilities across a wide spectrum of potential conflict. In most cases, we would provide only economic, technical, or security assistance (including military training and materiel). An overt Soviet invasion or direct military threat to our vital interests would, of course, pose a more demanding requirement for a military response that might involve the use of U.S. forces, together with any available forces of friends and allies.

(2) The Middle East

Our policy for the Middle East is based upon our goal of achieving a lasting Arab-Israeli peace. Accordingly, we support the security and territorial integrity of Israel and other nations in the Middle East region. As is the case with our SWA programs, which are focused on improving U.S. rapid deployment capabilities, our efforts in the Middle East are oriented toward deterring Soviet aggression by providing security assistance and economic support. This is especially true for Egypt and Israel, whose military forces are more than sufficient to provide for their territorial defense.

It is also necessary for the United States to provide direct military assistance to other countries in the Middle East. During the recent crisis in Lebanon, for example, and while we still had hopes that the warring parties would agree to withdraw their troops, we deployed Marine Corps units as part of the multinational peacekeeping effort. Further, in order to protect our Marine positions ashore, the U.S. Navy provided gunfire and tactical air support.

When the warring countries did not agree to withdaw their troops, the Multinational Peacekeeping Force was withdrawn.

U.S. troops also participate in peacekeeping operations in the Sinai as part of another Multinational Force and Observers (MFO) program.

b. Command Structure and Forces

In January 1983, we created the United States Central Command (USCENTCOM) with headquarters at MacDill Air Force Base, Florida. This is our first new geographic unified command in more than 35 years. Its establishment highlights the importance we place on being able to deter or oppose Soviet aggression in the SWA region.

The Commander in Chief, USCENTCOM (USCINCCENT) is charged with achieving U.S. national security policy objectives in SWA, including the Persian Gulf and Horn of Africa. His primary responsibilities are to ensure continued Western access to Persian Gulf oil; to deter Soviet aggression and preserve regional stability; and to halt, and if possible reverse, the spread of Soviet influence.

While, in principle, most of our general purpose forces could be used for rapid-response missions, we have identified a certain number of units that could readily be allocated to USCENTCOM for this purpose (see Table III.F.2).

Table III.F.2

Combat Forces Initially Available to USCENTCOM

Army

1 Airborne Division

1 Airmobile/Air Assault Division

1 Mechanized Infantry Division

1 Light Infantry Division

1 Air Cavalry Brigade

Marine Corps

1-1/3 Marine Amphibious Forces[a]

Air Force

7 Tactical Fighter Wings[b]

2 Strategic Bomber Squadrons[c]

Navy

3 Carrier Battle Groups

1 Surface Action Group

5 Maritime Patrol Air Squadrons

[a] A Marine Amphibious Force typically consists of a reinforced Marine division and a Marine aircraft wing (containing roughly twice as many tactical fighter/attack aircraft as an Air Force tactical fighter wing, as well as a helicopter unit).

[b] Includes support forces. Does not include 3-1/2 tactical fighter wings available as attrition fillers.

[c] These bombers would be accompanied by reconnaissance, command and control, and tanker aircraft.

Later in the five-year planning period, as we improve our ability to move forces rapidly and provide adequate support, USCENTCOM's ground allocations will be gradually expanded. During peacetime, many of these units are assigned to the U.S. Readiness Command for training purposes. Since they represent some of our most mobile and ready forces, they are available on a priority basis to USCINCCENT for his SWA mission. They are also available for rapid deployment missions in other regions.

CINCCENT recently established a small Forward Headquarters Element (FHE) afloat with our naval forces in the Persian Gulf. As local countries increase their interaction with the Command, we would expect to transfer more functions to the FHE.

c. Southwest Asia Regional Requirements

No matter where outside Europe we might send our rapidly deployable forces, the problems they would face are likely to be quite different from those posed by a NATO/Warsaw Pact conflict. The forces might have to operate in distant theaters characterized by an inadequate infrastructure (e.g., limited transportation and communications networks) and a harsh climate or difficult terrain, and where the United States maintains only a limited peacetime presence. Requirements for SWA illustrate the considerations we must incorporate into programs supporting our rapid deployment strategy.

Today, our peacetime presence in SWA is restricted primarily to sea-based forces in or near the Persian Gulf. To defend free world interests there, we must be able to project substantial ground and land-based tactical air power very rapidly to this distant region and sustain that power over time. Meeting these objectives will require:

-- Responding promptly to warning signals;

-- Developing the capability to deploy forces rapidly over extended air and sea lines of communications and to sustain the forces in combat;

-- Gaining approval for, and developing, land-based prepositioning sites;

-- Obtaining both overflight rights and en route access from several additional countries;

-- Securing lengthy air and sea lines of communications for considerable periods of time;

-- Obtaining access to and improving selected airfields and seaports in the theater;

-- Obtaining additional host nation support from countries en route to and in SWA;

-- Improving our cargo-handling capabilities to compensate for the lack of local infrastructure and trained personnel; and

-- Tailoring support (e.g., water, medical, communications, and transportation) for unique and austere combat operations.

All of these goals require improved relationships with moderate, friendly nations of the region.

d. Key FY 1986-90 Programs

We have made an impressive start toward responding to each of these challenges. The FY 1986-90 program builds largely on existing efforts; only a few of the programs are new.

(1) Command, Control, Communications, and Intelligence (C^{3}I)

A secure, survivable C^{3}I network is essential for conducting military operations in any theater, and it is one of our highest priorities in SWA. Communications facilities in the region -- unlike those in other, more developed theaters -- are practically nonexistent, except in a few urban areas. We therefore must acquire communications equipment that is capable of operating over long distances, is resistant to jamming, and is easily transportable -- a formidable and costly task. We are requesting $280 million over the next five years to procure mobile C^{3}I equipment that will initially be based in the United States, ready for rapid deployment to the region if needed.

Over FY 1986-90, our plans call for establishing three major communications nodes at appropriate locations. In the interim, we will rely on our Joint Communications Support Element (JCSE), which also must support other unified commands, and on the C^3 capability provided by a Deployable Field Headquarters (DFH) that will be operational in the next several years.

(2) Access and Improvements to Regional Facilities

We have reached formal agreements with several nations, and are pursuing negotiations with others, for permission to preposition materiel and conduct routine training exercises during peacetime, and to use regional facilities during crises. In some cases, it has been necessary to improve the existing facilities and infrastructure. These projects were initially funded in FY 1980-81, and most will be completed by the end of FY 1987. We will continue to seek opportunities for further improvements as our access to facilities in the region increases.

Table III.F.3 shows our funding requirements for military construction projects in countries where we have, or expect to gain,

Table III.F.3

Military Construction Funding for SWA-Related Facilities[a]
(Dollars in Millions)

Location	FY 1981-85 Appropriated	FY 1986-90 Programmed
Kenya	57.9	–
Oman	255.0	–
Somalia	54.0	–
Other	96.0	128.0
Total	**462.9**	**128.0**

[a] Does not include planning and design costs.

access. It is important to emphasize that we are not creating U.S. bases, per se, in SWA. Rather, we are improving existing facilities that U.S. forces might use and are arranging for prompt access when needed and when invited by the host government.

Egypt has offered temporary access to its facilities, including the strategically located installation at Ras Banas on the Red Sea, in the event the United States is invited to come to the defense of a friendly Arab country. The facility at Ras Banas would require improvement in order to be suitable for use by U.S. forces. Because of domestic legal and political considerations, however, the Egyptian government has declined a U.S. proposal to upgrade the base. The Egyptians plan to improve the base themselves, but this could be a protracted undertaking. In the meantime, the Egyptian government has reaffirmed its willingness to allow us to use other facilities in an emergency. If such a contingency should arise, we would, with Egyptian approval, be able to deploy forces near a potential conflict area in the region sooner than if we had to wait until we could move directly to the affected country.

Under the provisions of the U.S./Oman Facilities Access Agreement, and with the approval of the Omani government, we are improving selected facilities in that country for use by the United States during peacetime or in crises. Many of these improvements are nearly complete. They include upgraded runways, taxiways, and aprons; support facilities for personnel and maintenance; and storage facilities. Omani facilities are important for extending sea control, basing tactical aircraft, and staging ground forces during regional contingencies, as well as for supporting U.S. naval forces.

We also have completed some relatively small but important construction projects in Kenya and Somalia. Kenya has allowed us to use its facilities at Mombasa, where we have dredged the harbor and upgraded the airfield with improved navigation aids, utilities, and maintenance facilities. This port is useful for maintaining and refueling our ships, including aircraft carriers, and offers one of the few locations in the region for crew rest and liberty. Somalia has allowed us access to its seaport and airfield at Mogadishu, where we have improved the airfield's pavement and support facilities, and at Berbera, where we have made similar airfield modifications and have added POL storage and distribution facilities along with other improvements to the seaport.

(3) Exercises and Training

Our ability to conduct military operations in SWA or elsewhere is enhanced through combat exercises in and outside the theater, as well as through communications and logistics exercises and wargaming. Because we believe they are essential for operational readiness, as well as to demonstrate U.S. resolve in SWA, we plan to continue a wide range of exercises in the region. These programs have been well received by many SWA nations and, as a result, should enjoy greater participation in the future.

Our most recent major exercise in SWA was BRIGHT STAR 83, conducted in the fall of 1982. The exercise lasted about 30 days and involved some 5,500 U.S. troops operating in four countries. In Egypt, Army and Air Force units conducted field training and air defense maneuvers with Egyptian forces. In the Sudan, we airdropped Army Rangers for combined operations with the Sudanese army, and our

Marines practiced amphibious operations. We plan to hold another BRIGHT STAR exercise in SWA later this year.

Instead of exercising in SWA in FY 1984, we held exercise GALLANT EAGLE in California and Nevada, where some 50,000 personnel from all four Services participated in a simulated SWA conflict. Notably, GALLANT EAGLE marked the first use of our SL-7 fast sealift ships.

(4) Intertheater Mobility

The intertheater lift programs planned for FY 1986-90 will significantly improve our ability to deploy forces to distant theaters, particularly Southwest Asia. Airlift enhancements will almost double our ability to move forces, primarily air defense and light Army units, rapidly to this area. The Maritime Prepositioning Ship (MPS) program will provide our first rapid-response capability for a division-sized Marine force augmented with armor. An increase in government-controlled shipping will enable us to move a two-division corps by sea, one of them on fast sealift. (The Force Projection chapter provides further details on these and other intertheater mobility enhancements.)

e. Security Assistance

More than one-half of the $5.65 billion we are requesting for FMS credits in FY 1986 will go to countries in the SWA/Middle East region, and all of the guaranteed FMS loan credits extended to Israel ($1.8 billion) and Egypt ($1.3 billion) will be forgiven. More than half of the U.S.-provided Economic Support Funds (ESF) will be applied to enhance our economic and foreign policy objectives in the region. Table III.F.4 summarizes the major security assistance programs by country and type of assistance.

Table III.F.4

Major Funded Programs, FY 1986
($ in Millions)

Country	FMS Credits	Map Grants	International Military Education and Training Program	Economic Support Funds
Egypt	1,300	–	2.00	815
Israel	1,800	–	–	–[a]
Jordan	95	–	2.00	20
Kenya	–	25	1.80	35
Lebanon	10	–	0.80	10
Morocco	5	45	1.85	22.5
Oman	58.3	–	0.15	20
Pakistan	325	–	1.20	250
Somalia	–	40	1.50	35
Sudan	–	58.5	1.75	120
Tunisia	53	16	1.70	22.5
Yemen Arab Republic	–	6	1.55	–

[a] Not yet determined.

The program for Israel will help that country defend itself and ease the burden of its enormous defense effort. The program for Egypt continues our support for that nation's long-term military modernization plan, which includes a transition away from obsolescent Soviet equipment.

The program for Jordan will remedy major deficiencies the Jordanian armed forces face in countering the growing, Soviet-supported Syrian military buildup. The programs for Oman, Somalia, and Kenya complement our agreements for access to facilities in those countries and will help their governments cope with threats from neighboring states. Our substantial program with Pakistan represents the continuation of a multiyear modernization plan necessitated by the Soviet invasion of Afghanistan. The program for Morocco supports U.S. efforts to help that country modernize its armed forces, and the program for Tunisia will help it resist Libyan-supported threats to its internal security. These programs are provided on both a repayable-loan and grant basis.

We also anticipate continuing requests from other countries, such as Saudi Arabia and the United Arab Emirates, for help in modernizing their armed forces through direct cash purchases of military equipment and services, including construction.

f. Host Nation Support and Prepositioning

To the extent that host nation support can be provided by regional nations during a contingency, and that we can preposition materiel in peacetime, our limited intertheater lift assets could deliver more combat forces and equipment during the critical early days of a deployment to SWA. Our negotiations and plans for obtaining such support must consider the differing strategic priorities and perceptions of nations in the region; the absence of an indigenous integrated command structure and common operational concepts; and the long lines of communications, major geographic barriers, political instabilities, economic uncertainties, and strong religious and cultural biases that are prevalent. No nation in SWA is a formal ally of the United States, and all are wary of perceived superpower insensitivity to their sovereignty.

These problems, while formidable, are not insurmountable. We have approached several SWA countries with requests for host nation and contingency support and for permission to preposition U.S. materiel. We have achieved some successes in these areas, and we will continue discussions in the future.

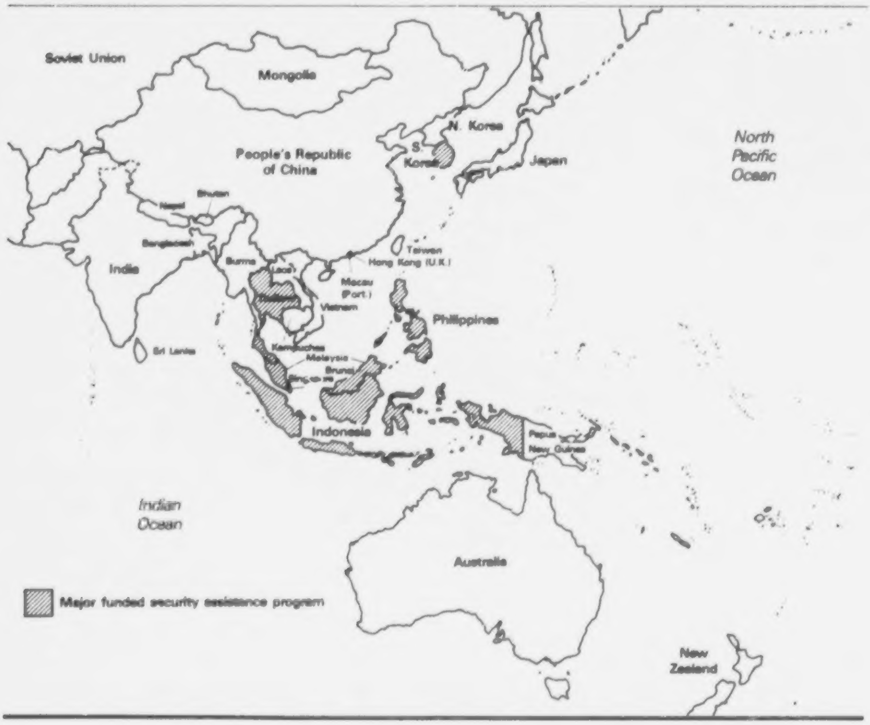
g. Extraregional Allied Support and Cooperation

Many of our friends and allies have long experience -- and, in some cases, still maintain a presence -- in SWA. France, for example, has naval and tactical air facilities in Djibouti that could help keep the Bab el Mandeb Strait open in a conflict. Similarly, the United Kingdom has provided military personnel to assist the Sultan of Oman's armed forces and has made arrangements for our using and improving its facilities at Diego Garcia. France, Italy, the United Kingdom, the Netherlands, and Norway have all participated in multinational peacekeeping forces in the Middle East. A number of the European allies have provided en route support to U.S. forces deploying to SWA for exercises or other missions. Furthermore, the United Kingdom and France routinely deploy forces to the region. Depending on the situation, external allied support and cooperation could be very helpful to us in a crisis. We and our NATO allies are studying ways for them to compensate in Europe for any diversion of NATO-oriented U.S. forces to SWA in the event of simultaneous conflicts in the two regions.

4. East Asia and the Pacific

East Asia and the Pacific (depicted in Chart III.F.3) have important economic and security ties to the United States. More than 30 percent of U.S. trade is conducted with the nations of this region, and five of our eight mutual security treaties link us with East Asian or Pacific nations. The commitments derived from these economic and security relationships require a strong and visible U.S. presence to deter the Soviet Union, North Korea, and Vietnam from interfering with the independence and stability of our friends and allies.

Chart III.F.3
East Asia and the Pacific


Soviet Union
Mongolia
N. Korea
S. Korea
Japan
People's Republic of China
North Pacific Ocean
Bhutan
Nepal
Bangladesh
India
Burma
Laos
Taiwan
Hong Kong (U.K.)
Macau (Port.)
Vietnam
Philippines
Sri Lanka
Kampuchea
Malaysia
Brunei
Singapore
Indonesia
Papua New Guinea
Indian Ocean
Australia
▨ Major funded security assistance program
New Zealand

a. Command Structure and Forces

The U.S. Commander in Chief, Pacific (USCINCPAC), with headquarters in Hawaii and forces spread across the western Pacific and

Indian Ocean, has geographic responsibility for over 50 percent of the earth's surface. Major units available to USCINCPAC are shown in Table III.F.5.

Table III.F.5
Forces Available to USCINCPAC

Army	**Air Force**
1 Infantry Division (Korea)	1 Strategic Bomber Squadron
1 Infantry Division (Hawaii)	10 Tactical Fighter Squadrons
	5 Tactical Support Squadrons
Marine Corps	**Navy**
Portions of 1 Marine Division (Okinawa)	6 Carriers with Air Wings
1 Marine Brigade (Hawaii)	89 Surface Combatants
1 Marine Division (California)	32 Amphibious Ships
	40 Attack Submarines
	12 Maritime Patrol Aircraft Squadrons

b. Security Relationships

The size of the East Asia and Pacific region and the limited availability of our own forces require strong cooperation with our friends and allies in meeting threats posed by potential adversaries.

(1) Japan

Our defense partnership with Japan, based on the Treaty of Mutual Cooperation and Security, remains the cornerstone of our defense policy in East Asia. Long-standing Japanese national policy calls for that country to acquire and maintain forces adequate for the defense of its land area and surrounding airspace and sea-lanes, out to a distance of 1,000 miles. These goals are supported by a strong U.S. presence in the Pacific and Indian Oceans.

(2) Republic of Korea (ROK)

U.S. and ROK forces face a growing military threat from North Korea. North Korea could today launch a massive attack with very little warning. Together with the ROK and our United Nations partners, we must continue to strengthen U.S. and ROK capabilities. With U.S. assistance, ROK ground and air forces are modernizing and improving their ability to conduct joint operations. We are also helping Korea improve its C^3I systems, upgrade its petroleum storage facilities and contingency airfields, and enhance the overall sustainability of its forces. At the same time, we are continuing efforts to reduce tension and maintain peace on the Korean peninsula.

(3) The Philippines

The Mutual Defense Treaty of 1951 and the Military Base Agreement of 1947 are the foundations of our security relationship with the Philippines. U.S. military facilities there permit a continuous air and naval presence in East and Southeast Asia and support U.S. forces operating in the western Pacific and Indian Oceans. The proximity of these facilities to the international sea-lanes connecting the Persian Gulf, Southeast Asia, and Northeast Asia makes them vital to the security of the region. Persistent problems in the Philippines have spawned a communist-led insurgency to which the Philippine government has responded with political and economic, as well as military, measures. U.S. military assistance and training programs will aid in dealing with the security-related aspects of the insurgency.

(4) Thailand

Maintaining the independence and territorial integrity of Thailand is critical to the stability of Southeast Asia. The presence of 150,000 to 170,000 Vietnamese troops in Kampuchea poses a direct threat to Thai security. We will continue to provide Thailand with military assistance and training to bolster its self-defense capability, under the auspices of the Southeast Asia Collective Defense Treaty (Manila Pact).

(5) Australia and New Zealand

The ANZUS Treaty links us with two of our oldest allies, Australia and New Zealand, in defense efforts supporting our mutual interests throughout the South Pacific.

c. Security Assistance

Again this year, more than half of the proposed FMS credits for the East Asia and Pacific region support the ROK Force Improvement Plan ($228 million). Most of the remaining FMS credits will be divided among the Philippines ($50 million), to help it stem the growing communist-led insurgency; Thailand ($97.5 million), whose borders are threatened by the substantial Vietnamese force in Kampuchea; and Indonesia ($34.7 million), which sits astride vital sea lines of communications.

Table III.F.6

Major Funded Programs, FY 1986
(Dollars in Millions)

Country	FMS Credits	Map Grants	International Military Education and Training Program	Economic Support Funds
Indonesia	34.7	–	2.80	–
Korea	228.0	–	2.20	–
Malaysia	5.0	–	1.15	–
Philippines	50.0	50	2.25	95
Thailand	97.5	5	2.50	5

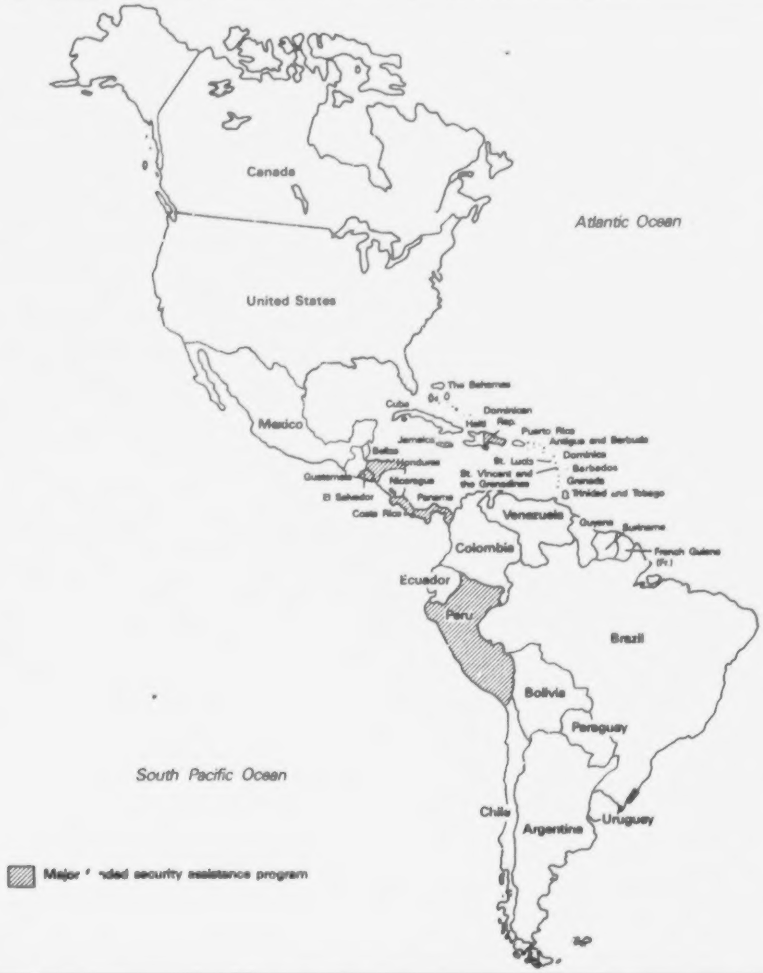
d. Regional Exercises

U.S. forces conduct major live-fire exercises with the ROK each year, including TEAM SPIRIT, the largest combined field-training exercise in the world. We also participate in annual bilateral and multinational exercises on a lesser scale with Japan, Thailand, the Philippines, Australia, and New Zealand.

5. Western Hemisphere

U.S. security commitments to Latin America are based on our adherence to the Rio Treaty. (The countries of this region are shown in Chart III.F.4.) Our policy seeks to defend the continental United States, and to minimize U.S. military presence and tailor security assistance to the specific needs of the armed forces of our friends there.

Chart III.F.4
Western Hemisphere


Canada
Atlantic Ocean
United States
The Bahamas
Cuba
Dominican Rep.
Haiti
Puerto Rico
Antigua and Barbuda
Mexico
Jamaica
Dominica
Belize
St. Lucia
Barbados
Honduras
Guatemala
Nicaragua
St. Vincent and the Grenadines
Grenada
Trinidad and Tobago
El Salvador
Panama
Costa Rica
Venezuela
Guyana
Suriname
Colombia
French Guiana (Fr.)
Ecuador
Peru
Brazil
Bolivia
Paraguay
South Pacific Ocean
Chile
Uruguay
Argentina
▨ Major funded security assistance program

Despite a recognition of the need to broaden U.S. security assistance to help our allies meet the growing Soviet, Cuban, and Nicaraguan threat, we have been unable to obtain the funding necessary for more than a superficial improvement. In the face of growing military buildups in Cuba and Nicaragua, neighboring countries have been able to do very little because of deteriorating economic conditions.

a. Command Structure and Forces

The Commander in Chief, U.S. Southern Command (USCINCSOUTH), with headquarters in Panama, has responsibility for Central and South America. The Commander in Chief, U.S. Atlantic Command (USCINCLANT), headquartered in Norfolk, Virginia, has responsibility for the Caribbean and the ocean areas surrounding Central and South America.

The United States maintains an Army brigade as well as small Air Force and Navy contingents in Panama. We also maintain bases in Puerto Rico and at Guantanamo Bay, Cuba. Although we have no bases in Honduras, an annex to our 1954 agreement with that country provides for U.S. access to Honduran airfields.

The U.S. Army School of the Americas in Panama, which had trained Latin American officers for 38 years, unfortunately closed its doors on September 30, 1984, pursuant to provisions of the Panama Canal Treaty. Because of its major contributions to our security as well as to the security of our neighbors, the school is continuing to operate from temporary quarters at Fort Benning, Georgia, until a suitable permanent facility can be found, probably in this country.

b. Programs

U.S. programs for the Western Hemisphere stress mutual coordination in responding to regional security needs. For example, the Memorandum of Understanding on Industrial/Military Cooperation signed in 1984 with Brazil should advance military cooperation on arms production and sales. Intelligence sharing allows our friends to take advantage of U.S. information-gathering assets. Annual conferences of the Service Chiefs of the Americas have also proven very beneficial over the years.

c. Security Assistance

A more intense exercise program is another way in which the United States has been able to demonstrate its commitment to regional allies and to give our forces an opportunity to train together. U.S. security assistance programs are focused on the training and materiel support required to enhance the performance of Latin American armed forces. These programs are designed to respond to critical military needs, not to promote arms purchases that would increase already-burdened regional defense budgets.

The U.S. security assistance effort has been focused primarily on the immediate defense needs of El Salvador and Honduras. The Regional Military Training Center in Honduras has been a convenient and cost-effective way of training the Salvadoran and Honduran armed forces to defend their homelands and resist communist-led insurgencies. U.S. instructors trained more than 6,000 personnel at the Center last year. Mobile training teams in El Salvador and Honduras are attempting to redress other deficiencies, such as medical care and command and control support. Equipment acquisitions have improved mobility and medical evacuation capabilities, while enhancing communications security.

Table III.F.7

Major Funded Programs, FY 1986
(Dollars in Millions)

Country	FMS Credits	Map Grants	International Military Education and Training Program	Economic Support Funds
Bolivia	–	6.0	0.30	10
Colombia	20	–	0.95	–
Costa Rica	–	2.5	0.225	150
Dominican Republic	4	6.0	0.80	50
Eastern Caribbean	–	10.0	0.40	35
El Salvador	–	131.0	1.60	210
Guatemala	10	–	0.30	25
Honduras	–	87.0	1.25	80
Jamaica	–	8.0	0.275	70
Panama	4	14.4	0.65	40
Peru	10	18.35	0.85	45

We will continue to support the security forces of the member states of the Eastern Caribbean Regional Security System, as well as Jamaica and the Dominican Republic. To the extent possible, we will coordinate our efforts with those of allied nations active in the region, particularly the United Kingdom.

The increasing guerrilla actions in the Andean countries demand that U.S. security assistance efforts not be overly restricted to Central America. Reductions in political violence and improvements in civil-military relations may make resumption of security assistance possible in Guatemala.

d. Regional Exercises

The United States and eight South American countries participated in last year's UNITAS exercise, which involved a circumnavigation of South America. This exercise program, which has been conducted for 25 years, fosters solidarity, goodwill, and military professionalism among participating navies.

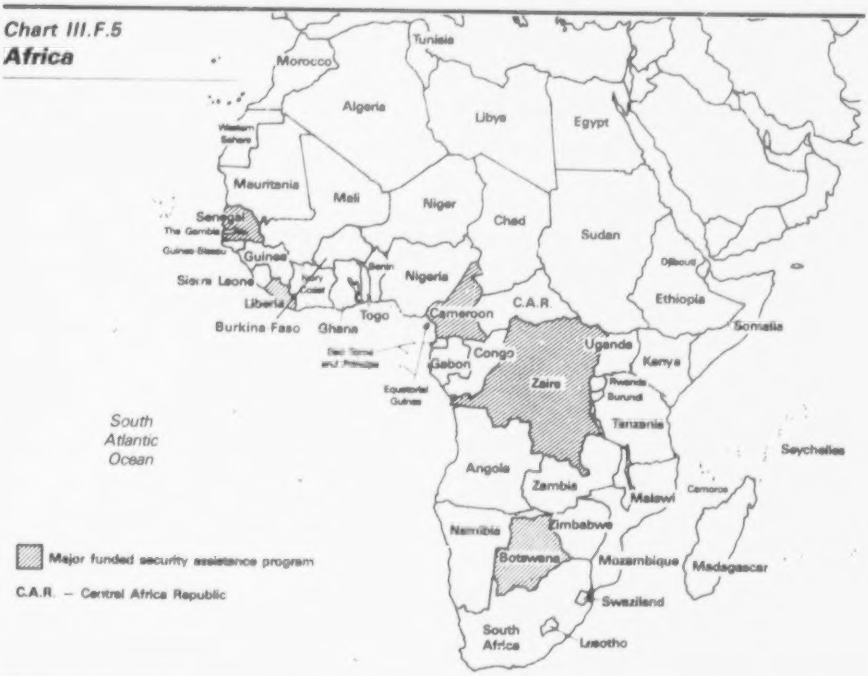
In 1984, the United States participated in combined exercises such as AHUAS TARA II and GRENADERO I in Central America and adjacent waters. In MINUTEMAN I, an engineer training exercise conducted in Panama, active Army and Army National Guard units joined with Panama Defense Force personnel in constructing and improving roads on the western coast of Panama. Such exercises improve our ability to respond to crises in the region, provide an opportunity to train with local forces, and -- perhaps most important -- demonstrate the United States' commitment to allies there.

6. Africa

In Africa, (see Chart III.F.5) we seek an environment in which nations can achieve political stability, territorial security, and economic well-being. These goals are threatened by the continued expansion of Soviet and Soviet-surrogate influence and adventurism in the region. The Soviets, in concert with Cuba and Eastern bloc states, supply large amounts of equipment, materiel, advisory assistance, and training to Libya and the nations of Sub-Saharan Africa. About 2,500 Cuban military personnel -- many of them combat troops -- are stationed in Ethiopia. Some 30,000 more Cuban soldiers are fighting to preserve the Marxist government in Angola from a growing resistance movement, in part to help ensure continued Soviet access to military facilities and the continued use of Angola as a base for supporting Marxist-dominated "liberation movements" in southern Africa. These circumstances, combined with Libya's continued aggression against Chad in the past year, have been of major concern.

Chart III.F.5

Africa


Tunisia
Morocco
Algeria
Libya
Egypt
Western Sahara
Mauritania
Mali
Niger
Chad
Sudan
Senegal
The Gambia
Guinea Bissau
Guinea
Sierra Leone
Liberia
Ivory Coast
Benin
Nigeria
Djibouti
Ethiopia
C.A.R.
Togo
Burkina Faso
Ghana
Cameroon
Somalia
Sao Tome and Principe
Congo
Gabon
Uganda
Kenya
Zaire
Rwanda
Burundi
Equatorial Guinea
Tanzania
South Atlantic Ocean
Seychelles
Angola
Zambia
Malawi
Comoros
Namibia
Zimbabwe
Botswana
Mozambique
Madagascar
Swaziland
South Africa
Lesotho
Major funded security assistance program
C.A.R. – Central Africa Republic

a. Command Responsibilities

Three unified commanders have responsibility for Africa. The U.S. Commander in Chief, Europe (USCINCEUR), has responsibility for most of the continent. Egypt, the Sudan, Ethiopia, Djibouti, Somalia, and Kenya are the responsibility of the Commander in Chief, U.S. Central Command (USCINCCENT); and the four African island states in the Indian Ocean are the responsibility of the Commander in Chief, U.S. Pacific Command (USCINCPAC).

b. Security Assistance

The security assistance request for Africa supports ongoing programs through the provision of training, logistical support, and spare parts. Most of the assistance will be extended through MAP grants and economic support funds; few transfers of major weapons systems are anticipated. The bulk of our FY 1986 funds will be directed to programs benefiting Liberia, Botswana, Zaire, and Chad. The assistance to Chad is especially important as that country attempts to cope with Libyan subversion and aggression. We are continuing the regional Civic Action Program, under which we help African armies undertake activities (such as road building) beneficial to their countries' military and civil sectors, and aid African navies and coast guards in improving their ability to patrol territorial waters and enforce fishing regulations.

Table III.F.8

Major Funded Programs, FY 1986
(Dollars in Millions)

Country	FMS Credits	Map Grants	International Military Education and Training Program	Economic Support Funds
Botswana	6	4	0.40	8
Cameroon	7	–	0.225	–
Chad	–	6	0.15	10
Gabon	5	–	0.15	–
Guinea	–	5	0.15	–
Liberia	–	13	1.30	45
Niger	–	5	0.275	7
Senegal	–	4	0.50	15
Zaire	–	10.4	1.40	15
Civic Action Program	–	7	–	–

G. MOBILIZATION

1. Introduction

Mobilization is the process by which the Armed Forces are brought to a state of readiness for war or other national emergency, including activating all or part of the Reserve Components. The capability of the United States to mobilize its vast economic, industrial, and human resources to augment the active force in times of national emergency is an essential factor in deterring potential enemies and reassuring our allies. The complexity and magnitude of the entire process makes peacetime planning essential for the success of mobilization. This chapter addresses the Reagan Administration's emphasis on mobilization planning and the resultant enhanced military preparedness.

The President has repeatedly emphasized his personal commitment to mobilization planning and preparedness. In National Security Decision Directive (NSDD) 47, he established a clear policy to develop programs to provide sufficient manpower and materiel to mobilize. This guarantee of the nation's ability to mobilize is a significant factor in deterring potential enemies and in assuring our allies of our continued support.

2. Interagency Mobilization Initiatives

a. The Emergency Mobilization Preparedness Board (EMPB)

In 1981, the President established the EMPB to develop a means for managing America's mobilization potential. The Board is chaired by his Assistant for National Security Affairs and includes deputy cabinet-level representatives from all major Federal Departments and Agencies having mobilization preparedness responsibilities. The Board establishes national policy in the mobilization area, develops and monitors progress on the National Plan for Emergency Preparedness, and resolves issues that arise in the mobilization planning process.

b. Military Mobilization Working Group (MMWG)

The MMWG is a chartered working group of the EMPB that focuses on improving and enhancing the interagency coordination of plans and procedures for military mobilization and for military support to civil agencies in emergencies. Among its major accomplishments, the MMWG has:

-- Identified and described a range of scenarios for national mobilization planning;

-- Determined DoD's initial resources required to support mobilization;

-- Established, with the Federal Emergency Management Agency (FEMA), a Federal Resource Assessment System for the annual appraisal of mobilization resource availability;

-- Prepared standby legislation to draft health professionals into the military, should the number of volunteers to deal with the crisis be inadequate; and

-- Evaluated the ability of current systems to support civil defense, to provide military assistance to civil authorities as required, and to recommend changes in these systems.

In the coming year, the MMWG will continue to promote interagency mobilization planning. In that regard, it is now developing an unclassified mobilization scenario for the use of those Federal Agencies which need to conduct mobilization support planning but are unprepared to deal with the classified materials found in the current plans. Working groups within the MMWG will refine the estimates of DoD's mobilization resource requirements through use of the Federal Resource Assessment System. Work will also begin on defining the resource requirements of the nation and its ability to fulfill them. Consideration will be given to defining our defense requirements for critical skills other than health professionals and for determining if there is a need for standby draft legislation covering such skills. The MMWG will also develop interagency plans and resource requirements to support deployment of forces. Finally, we plan to develop a system which will integrate military support into all non-mobilization crisis planning.

c. Emergency Communications Working Group (ECWG)

Executive Order 12472, Assignment of National Security and Emergency Preparedness Telecommunications Functions, consolidates the responsibility for telecommunications functions that support national security and emergency preparedness (NSEP). The Executive Order also established the National Communications System (NCS) and the NCS Committee of Principals. This major achievement in sorting out emergency communications roles and responsibilities significantly reduces duplicative government actions. Twenty-two federal organizations are now members of the NCS and serve on the Committee of Principals. Most taskings in the National Plan have been accomplished. The NCS has also begun a comprehensive review of those taskings to ensure that they respond to NSEP telecommunications needs within the framework of E.O. 12472.

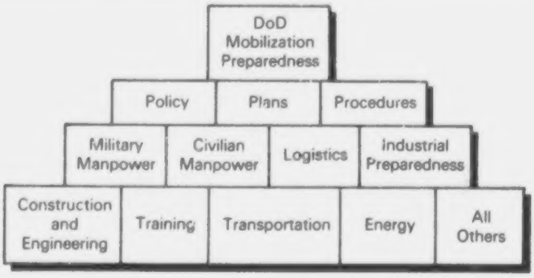
3. DoD Mobilization Initiatives

a. Planning and Policy

Our capability to mobilize is based on the accuracy of our plans and the availability of potential resources. In peacetime, we design contingency plans to respond to the various crises that may occur. This includes planning to ensure that the resources needed will, in fact, be available. Policy guidance forms the basis for our plans which are, in turn, evaluated through a series of recurring exercises. As illustrated in Chart III.G.1, mobilization preparedness is based on the building blocks of policy, plans, and procedures which in turn derive their support from a number of specific functional areas. The remainder of this chapter will discuss mobilization policy and plans, identifying those areas where notable progress has been made.

In recent years, policy guidance has been based on the likelihood of a multitheater war. This clear recognition of the international situation amplifies previous guidance based on a single theater, NATO-only conflict. In turn, it has led to an expansion and complication of mobilization plans and procedures. However, as we learn from our expanded planning and procedures, we are likewise enhancing our mobilization preparedness.

Chart III.G.1
DoD Mobilization Preparedness Building Blocks



Mobilization planning took a step forward in June 1982 with the publication of the DoD Master Mobilization Plan (MMP). The MMP is the keystone of our mobilization planning efforts. While the MMP is intended to provide broad, department-level policy guidance, it also establishes specific responsibilities and tasks for DoD components. An annex was added to identify those critical decisions which must be made upon mobilization.

Recent exercises identified a need to update the MMP. During fall 1984, we distributed a revised MMP that includes new roles and responsibilities corresponding to the DoD reorganization. Also, we incorporated the findings of a DoD task force to upgrade and define in more detail responsibilities in the logistics area. In the spring, we expect to publish a new section to clarify OSD's role in mobilization exercises. This will help train both leadership and staff support to deal with real crisis problems.

A DoD Crisis Management System (CMS) has been developed to enhance the ability of the DoD staff to perform its essential functions more rapidly and effectively in times of major crisis. This system permits action on a large number of critical issues to:

- Support the Secretary of Defense and other DoD principals with the information necessary to permit timely decisionmaking;
- Facilitate resolution of problems at the lowest practical levels;
- Focus the major issues for senior decisionmakers; and
- Provide a single information source for all DoD activities in responding to the crisis at hand.

The CMS has been tested, evaluated, and refined in each of the last five major JCS-sponsored command post exercises. In July 1984, the Secretary of Defense approved the establishment of a small, permanent facility to be the core of DoD's crisis management activities.

DoD has been increasingly active in planning and participating in mobilization exercises. We have also instituted a remedial projects program to identify lessons learned, to assign reponsibilities for correcting them, and to ensure actions are completed. DoD's increased role in exercises has improved the staff's ability to carry out its emergency functions.

b. Manpower Sustainability

Combat sustainability, the staying power of our combat force, depends on the continued availability of weapons, equipment, secondary items, fuel, and munitions to replace those consumed or destroyed during combat operations, and on the availability of trained personnel to replace combat casualties. Materiel sustainability is discussed in the Readiness and Sustainability chapter. Manpower sustainability is achieved through a combination of active military forces, mobilized Reserve Components, pretrained military manpower called to duty, newly trained military manpower, and the civilian manpower required to operate the support base.

Wartime manpower sustainability is measured by comparing demand with supply in the Wartime Manpower Planning System (WARMAPS). The WARMAPS military manpower subsystem is slowly expanding to address such military occupational areas as combat and medical, where we anticipate replacement problems may occur. We have also established a WARMAPS civilian manpower subsystem to identify our need for additional civilian personnel after mobilization. With each update of the civilian manpower data, we have improved our estimates of our wartime civilian manning requirements.

c. Military Manpower Initiatives

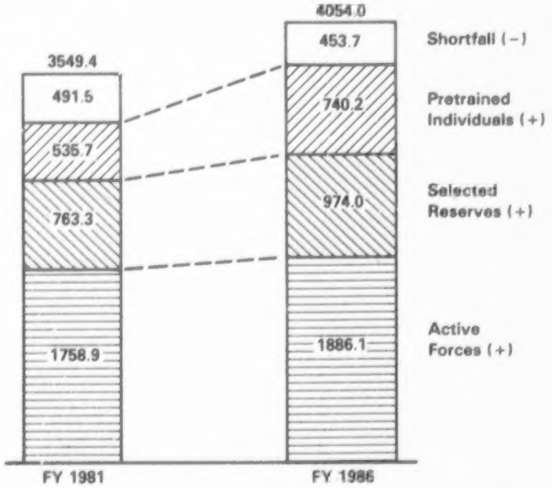
As depicted in Chart III.G.3, WARMAPS data shows a significant increase in military manpower requirements between FY 1981 and FY 1986. The increased requirement for military manpower is largely caused by a change in the projected scenario from a single theater (NATO) conflict in FY 1981 to a multitheater worldwide conflict in FY 1986. However, when requirements are compared with supply of active forces, Selected Reserve, and pretrained individuals, the size of the shortfall decreases between these years. While the size of the shortfall in total manpower has decreased, we expect certain critical skill shortages to exacerbate our shortfalls. However, these shortfalls generally occur later in a projected scenario than do equipment and ammunition shortfalls.

We have instituted programs to increase military manpower sustainability now. The results of a variety of initiatives are beginning to affect both the quantity and quality of the Individual Ready Reserve (IRR). The IRR has grown steadily from a low of 342,000 in June 1978 to over 445,000 in FY 1984, and is projected to be more than 467,000 by FY 1986. The Army has initiated refresher training programs to ensure that the IRR will be an immediately usable wartime asset. All Services are also intensively managing the IRR pool to identify those individuals who could occupy critical mobilization positions and to screen out those individuals who will not be available for wartime service.

Extension of the military service obligation (MSO) from six to eight years, along with IRR enlistment and reenlistment bonuses, are designed to alleviate the manpower sustainability problem. We expect these bonuses to reduce specific shortages in combat and combat support skills in the IRR, thereby increasing our near-term manpower sustainability. Implementation of the eight-year MSO on June 1, 1984

Chart III.G.2

Wartime Military Manpower Requirements



will begin to eliminate aggregate manpower shortfalls beginning in FY 1990. These mobilization manpower initiatives are discussed in greater detail in the Reserve Military Manpower section of the Manpower chapter.

We are also making progress in establishing plans to assess both the quantity and quality of manpower required to meet our global requirements. Specific subjects under study include allocation and use of conscientious objectors, quality distribution of military manpower among the Services, industrial deferments, and testing of the entire DoD mobilization manpower acquisition process.

The Army is aware of a potentially significant problem in its training base surge capacity and is conducting an in-depth evaluation of the issue. The Army is sizing its training base to provide enough surge capacity to accept and adequately train nonprior service personnel as well as retrain prior service personnel into shortage skills.

In FY 1981, the Navy lacked the medical capability to support a global conflict. During a global conflict, it would have had to evacuate the majority of Navy and Marine Corps combat casualties to the United States with a resultant increase in morbidity and mortality rates. The Navy has initiated several large-scale programs to improve its operational medical readiness. These programs include the design, procurement, and staffing of 19 fleet hospitals and two hospital ships, significantly improving the Navy's capability for treating both Navy and Marine Corps in-theater combat casualties.

d. Civilian Manpower Initiatives

The requirement for wartime civilian manpower has grown from 1,120,000 in 1981 to 1,187,000 in FY 1984 -- an increase of 67,000.

This is a result of the addition of the mobilization requirements of all Defense Agencies to our data base as well as better planning, better definition, and a more detailed look at our wartime civilian manpower needs. In the face of this larger and more defined requirement, our estimated supply of civilian manpower at the start of mobilization has also increased significantly -- from 682,000 to 863,000. This has reduced the overall number of new people we would need to hire in a mobilization from 438,000 to 324,000. However, there is still great difficulty in hiring this many people in the right occupations and grades and at the right locations.

Recognizing the importance of civilian employees in a national emergency, we have concentrated our efforts on improving our ability to hire additional civilians quickly. We will soon provide each DoD installation information on civilian DoD retirees living within commuting distance. During a crisis, our civil service retirees could provide a ready source of trained manpower.

We have improved our ability to work with the local offices of the United States Employment Service (USES) upon which we would depend for much of our mobilization recruiting. With the aid of the Office of Personnel Management, we now can present recruitment requests listed with the same occupational code used by the USES offices. A recent mobilization exercise showed that our past inability to do this would have greatly limited USES' assistance.

We have also introduced a new policy to preclude the loss of key civilians in essential overseas positions during a crisis. Although our civilian employees have an excellent historical record of serving in hazardous areas during past wars, DoD agreed with the Congress that we should do everything possible to retain key civilian employees during emergencies. We plan to issue a similar directive on contractor personnel in the coming year.

e. Logistics Initiatives

In the past, a major emphasis of many DoD policies has been the promotion of peacetime economies and efficiencies. This emphasis could impact negatively on our ability to meet the anticipated surge in throughput capacity required during mobilization. As a result, we have begun to identify those DoD logistics policies and procedures that would be modified during mobilization. Our objective is to develop a set of standby actions that can be rapidly and selectively implemented during mobilization in order to maximize the ability of available staff and Automatic Data Processing (ADP) resources to provide wholesale-level logistics support to deployed or deploying forces.

Exercises PROUD SABER and WINTEX/CIMEX 83 demonstrated that DoD responsibilities for materiel management during mobilization were not clearly delineated. Thus, we created the Mobilization Materiel Management Task Force (MMMTF) in April 1983 to address deficiencies in the MMP and CMS. The MMMTF has completed its review, and the MMP and CMS have been revised. As a result of these efforts, materiel management and organizational roles in the event of mobilization are now clear and integrated.

f. Industrial Preparedness Initiatives

To improve industrial responsiveness to mobilization requirements and plans, we have taken steps to focus on our highest priority mobilization requirements in accordance with peacetime affordability concerns. Our priorities for industrial base investment seek to:

-- Achieve peacetime production efficiencies, while retaining a warm production base for critical items;

-- Achieve production surge capability for high priority consumables and critical components identified by the Joint Chiefs of Staff and the Services;

-- Meet wartime sustainability objectives, whenever feasible, for critical munitions and combat equipment; and

-- Maintain a viable industrial preparedness planning program to reduce post M-day industrial base response times for mobilization requirements.

For the first time, funds have been authorized by the Congress to begin developing in FY 1985 a production surge capability for the TOW-2 missile. Also for FY 1985 and FY 1986, a total of $100 million has been authorized to establish or expand domestic capacity and supplies of critical industrial materials. A joint industrial base study on precision guided munitions (PGM) has commenced and seeks to permit a more realistic assessment of industrial base capability to satisfy the combined requirements of all the Services for the PGM category of materiel. The D-to-P (time between initiation on D-Day and full production sustainability) concept has been reemphasized to determine the optimum investment balance between industrial responsiveness in wartime and war reserve stocks in peacetime. Other mobilization preparedness enhancements of industrial planning are covered in the Industrial Base chapter.

g. Construction and Engineering Initiatives

We continue to make significant progress in planning for the timely acquisition of facilities required during mobilization. The construction agents have developed concept designs for common facilities that must be constructed. Detailed designs are now under way. The Services have identified commercial facilities that could be used to support mobilization. FEMA is coordinating with other federal and local agencies to ensure that they have not identified the same facilities for mobilization use. This will provide positive assurance that our facilities acquisition plans are credible.

h. Training Initiatives

We have recently taken two initiatives to enhance the effectiveness of Active and Reserve Component mobilization training. Reserve training is being integrated with Active Component training and training technology. Additionally, we have formed the Defense Training Data and Analysis Center (TDAC), an organization whose tasks will include analysis and evaluation of cost-effective training improvements for Active and Reserve Components.

i. Transportation Initiatives

DoD transportation initiatives in the mobilization area have resulted in improved planning and interagency coordination mechanisms and agreements. The Contingency Response (CORE) Program established an on-call interagency team of senior officials, augmented by members of the commercial transportation industry, to be activated in a contingency. This team will implement procedures which significantly reduce the reaction time required to muster civil rail, motor, and air assets to meet DoD mobilization transportation needs.

Our mobilization and deployment plans call for activation and operation of DoD terminals at commercial water and air ports by reserve transportation units. Important initiatives to improve the reaction time and operational performance of these units include:

-- Completion of a series of mobilization workshops and on-sight briefings for supported and supporting units;

-- Training of reserve units at their actual mobilization site on a regular basis; and

-- Preparation of detailed battle books providing a guide to local authorities, contractors, and facilities (to include maps and photographs) at various ports.

Port readiness is a major planning concern. The complex and seemingly overlapping roles and missions of federal, state, and local authorities, compounded by the presence of private business elements in U.S. ports, have long been a confusing issue. A DoD-initiated joint interagency memorandum of understanding has just been completed. For the first time, a single document sets forth jurisdictional responsibilities, provides for timely exchange of information, and details procedures for the optimum use of personnel and resources through cooperative effort.

Significant progress is being made in automating logistical functions to support mobilization and deployment of U.S. forces:

-- Logistic Applications of Automated Marking and Reading Symbols (LOGMARS), a system to mark equipment and capture data in unit movements, was tested successfully in REFORGER 84. This system accelerates the processing of units through ports of embarkation, while reducing errors and the need for hard copy documentation.

-- The Crisis Action Management System (CAMS) is being developed to provide detailed transportation feasibility analysis for operational alternatives during crisis situations.

-- The Transportation Coordination Automated Command and Control Information System (TC ACCIS) is a joint prototype development project that will eventually result in automation of unit deployment planning and execution from unit level, through the Installation Transportation Office, to the Transportation Operation Agency.

-- The Automated Airload Planning System (AALPS) is a functional prototype which provides gross airload planning and type-load capability for units in a significantly reduced time frame.

-- Finally, a new Computerized Deployment Execution System (CODES) is in the initial stages of development and will automate the preparation of vessel stow plans, now a slow manual process.

These initiatives will enhance our transportation capability to meet the compressed reaction times anticipated during mobilization and deployment conditions.

j. Energy Initatives

During FY 1984, DoD also experienced progress toward its goals of improved energy preparedness and efficiency.

- -- On the preparedness side, the Congress approved a legislative initiative to provide DoD with emergency authority to waive procurement regulations during petroleum emergencies. Had this authority been available earlier, it could have made a major difference in DoD's ability to obtain adequate fuel supplies in FY 1979 and FY 1980.
- -- On the efficiency side, DoD continues its management and investment programs to improve energy efficiency in both facilities and operations. On both fronts, DoD has made significant achievements in energy conservation, in spite of increased costs. We expect this progress to continue in the years to come.

DoD's energy efficiency initiatives contribute to preparedness by reducing the potential impact on DoD operations of energy supply disruptions. Our future challenges focus on improving preparedness and efficiency. We will be examining a number of complex preparedness issues, including the need for long-range strategic energy supplies. We plan to underscore the importance of energy-efficient design in facilities, equipment, and weapon systems. We will also continue to work with our allies toward mutual energy security objectives.

k. Other Initiatives

Mobilization planning and preparedness is an integral part of efforts in many areas discussed separately in this report. The progress discussed in the chapters on Readiness and Sustainability, Manpower, and Health Affairs, in particular, reflect our enhanced mobilization preparedness. The progress we've made in host nation support initiatives, as discussed in the Coalition Strategy - Regional Security chapter, will also contribute to better preparedness. Mobilization planning and preparedness is pervasive throughout all defense programs since our ultimate mission is to be prepared to mobilize and defend the nation in time of crisis.

4. Conclusion

Much has been accomplished in the last four years to enhance mobilization planning and preparedness. This chapter has addressed some of our key accomplishments. As is apparent from this brief review, we still have much to do. We will use this firm foundation as the basis from which to build a complete mobilization management system and to develop the resource data needed to support such a system.

H. INSTALLATIONS

1. Introduction

Installations construction, maintenance, and management consume almost ten percent of the DoD budget. A program of this magnitude demands leadership dedicated to innovative management and a concerted effort at all levels to ensure that we build and maintain the appropriate facilities to support our personnel. Specific programs supporting this objective include replacement and modernization of obsolete facilities; maintenance and repair of existing facilities; construction of new facilities; improvements to operating efficiency; host nation programs; management initiatives; and compliance with environmental, safety, and occupational health standards.

2. Better Working and Living Conditions for Our People — A Key to Improved Readiness

During the past three years we have made major improvements in the working and living conditions for our servicemembers, especially overseas where many of our men and women had been living in pre-World War II facilities. The key to this progress has been a significant increase in facilities investment as depicted in Table III.H.1.

Table III.H.1

Facility Investment Improvements
(Constant FY 1986 Dollars in Billions)

	FY 1977-80	FY 1981-84	Increase (Percent)	FY 1985	FY 1986
Repair and Maintenance	12.8	17.0	33	4.5	4.4
New Construction					
United States	12.7	15.1	19	4.7	5.8
Overseas	2.5	6.7	168	1.6	2.0
Worldwide	15.2	21.8	43	6.3	7.8

Our investment is paying off. Commanders around the world are reporting marked improvements in working and living conditions. Following a recent visit to Germany, the Secretary of the Army reported, "This Administration's facility improvement program has had a great impact on morale, efficiency, and readiness." It is, therefore, imperative that the facilities we put in place not only support our sustainability initiatives but also provide the flexibility required by our forces to respond to local, theater, or worldwide challenges. Continued emphasis on facility improvement for the next few years will result in decades of strengthened national defense.

Included in our facility investment program are more and better barracks for enlisted personnel. A new barracks design, developed this past year, provides more privacy and more living space for servicemembers -- particularly those in the middle enlisted grades.

While considerable progress has been made in improving troop barracks, much remains to be done. For instance, we still need over 330,000 barracks spaces at a cost of more than $7 billion. Our construction backlog in maintenance and supply facilities is over $13 billion.

Moreover, in many areas, our military families still do not have adequate housing. In response, two new initiatives were approved by the Congress in FY 1983 and have been instrumental in providing new housing in considerably less time than had previously been the case.

First, the Congress authorized DoD to encourage private developers to build housing on or near our bases with the incentive of long-term leasing or guaranteed occupancy. This authority was granted for a limited time at only a few locations. Included in our plans are testing long-term leasing at Eielson Air Force Base and Fort Wainwright, Alaska; San Diego, California; Fort Polk, Louisiana; Hanscom Air Force Base, Massachusetts; Fort Drum, New York; Fort Hood, Texas; and Norfolk, Virginia. Plans for testing the rental guarantee program include the following sites: Fort Rucker, Alabama; Naval Station, Long Beach; Norton Air Force Base, California; Fort Campbell, Kentucky; Naval Weapons Station, Earle, New Jersey; and Goodfellow Air Force Base, Texas.

The second initiative provides for the use of American-manufactured construction material for nearly all new overseas construction. This program has been stagnant for years, blocked by uncertainty over the duration of our stay and the relative merits of leasing versus building. Recently, however, we have been successful in obtaining host country permission to use family housing units that were manufactured in the United States for our MILCON projects. Two contracts have been awarded for overseas housing construction: one in Germany and the other in the Philippines. For FY 1986, we are requesting over $200 million for overseas family housing construction.

Moreover, our MILCON budget will continue to focus on those personnel support facilities -- barracks, gymnasiums, child care centers, and clinics -- deemed essential to improving the quality of life for our troops and their families. Quality of life benefits not only reaffirm the depth of the nation's commitment to its servicemembers and their families, they also vitalize the Armed Forces.

3. Host Nation Support (HNS)

Continued stationing of U.S. forces overseas has warranted increased emphasis on obtaining host nation support in providing more facilities and more support without straining country-to-country relations. In this regard, the Japanese government provides facilities for personnel support to include dormitories, hospitals, and family housing. Our construction needs are being met much earlier due to a steady growth in Japan's annual contribution to U.S. military construction -- $285 million in FY 1984, with an equal amount expected for FY 1985. Over the last five years, the Republic of Korea has funded $426 million for operational requirements such as airfield facilities. In Europe our NATO allies provide real estate, utilities, and services for our forces and their families. Additionally, we are continuing to formalize a number of wartime HNS agreements with NATO countries.

The commonly funded NATO Infrastructure Program provides many of our wartime required facilities. All of the NATO allies agreed to a significant increase in Infrastructure Program funding for the remainder of the decade. This will allow the construction of more facilities directly supporting U.S. forces stationed in Europe. These include facilities for the Patriot missile, storage of prepositioned war reserve materiel including fuel and munitions, and reception and beddown of our NATO-assigned land and air reinforcements.

We are continuing to press for recoupment of funds used to prefinance NATO construction. During FY 1984, we were able to collect $24 million. This was twice our original estimate. In FY 1985, we expect to recoup an additional $15 million, which is the full amount programmed within the current NATO Infrastructure funding cycle. We are working closely with the NATO military commanders to program the maximum amount of recoupment during the next six-year NATO funding period.

4. Improving Installation Management

As the President said in his State of the Union Address, "Without . . . competition, there can be no champions, no records broken, no excellence." With this in mind, DoD's goal this year is to improve installation management through competition. Specific examples include peer competition and the Defense-wide competition for a Commander in Chief's Award for Installation Excellence. Moreover, we are particularly proud of our improved management of manpower and money in compliance with OMB Circular A-76 requiring competition between our in-house workforce and the private sector for base support services. From FY 1979 to FY 1983, over 900 competitions were conducted. These competitions involved a workforce of over 32,000 employees. In-house organizations won half of these competitions. Annual savings have reached $350 million. Although we are still analyzing the FY 1984 results, we know we have generated considerable savings by competing at least 10,000 positions. Additionally, during FY 1985 and FY 1986, we plan to compete another 10,000 positions annually.

5. Model Installation Program

I am convinced that, given the opportunity, base-level managers and workers can and will find more innovative ways to become more efficient. This fundamental belief led to the Model Installation Program, one of this year's most important initiatives. The concept is simple: let the commanders run their bases. Their job is to strive for excellence and try new methods. In return, model bases are able to use any savings from their new ideas to improve facilities and services for their people. This grass roots approach is identifying better ways to operate and is leading to better working and living conditions for our people while increasing morale and readiness. For example, readiness improved at the Whiteman Minuteman Base upon obtaining a waiver of the regulation requiring electronic equipment to be repaired off base. Since the waiver, which permitted base personnel to repair electronic equipment was approved, there hasn't been a single missile out of commission for more than a day. The participating commanders have expressed great enthusiasm for this initiative and its potential for getting more Defense for each dollar.

6. Environmental Leadership

DoD's environmental challenges have never been greater. We anticipated and overcame many of the problems we faced over the years. Last year, we assumed a leadership role in this key area. We cemented cooperative relations with the Environmental Protection Agency (EPA), established the Defense Environmental Leadership Project with a team of experts to overhaul our environmental management system, and secured the Environmental Restoration Account with $150 million appropriated in FY 1984 and $314 million in FY 1985. In FY 1986, we will continue this commitment by budgeting $342 million for environmental restoration. This unprecedented surge in management initiatives and resources has finally brought environmental programs into the mainstream of installation management where they belong, and demonstrates DoD's leadership role in achieving our national environmental goals.

We spent about $20 million in FY 1984 for environmental activities at facilities formerly owned by DoD. We plan to spend $43.5 million for this effort in FY 1985. Seventy percent of our installations are in compliance with hazardous waste management regulations. We are striving to achieve full compliance, with an interim goal of 90 percent in FY 1985. All of our major air pollution sources are presently in full regulatory compliance or on an approved schedule to achieve it. We are reviewing the design, construction, and operation of our waste treatment facilities to bring them into full compliance.

In FY 1984, DoD and EPA signed the Chesapeake Bay Initiative thus joining with state and local governments in a formal agreement to protect a significant natural resource. We have followed through on this program by spending $17 million in FY 1984 on pollution abatement projects in the Chesapeake Bay region.

7. Homes for the Homeless

In response to a Presidential request the Services are working in partnership with local elected officials and religious and charitable organizations to provide emergency shelters for the homeless on military installations. Space has been offered to hundreds of local governments for these community-operated shelters. Within two months of the President's request in 1983, shelters were opened at the Naval Air Station in Corpus Christi, Texas, and at Kirtland Air Force Base, Albuquerque, New Mexico. Currently, DoD is working with Alameda County, California, to open a shelter at Camp Parks Army Base. DoD was also successful in assisting Philadelphia establish a shelter in an Army Reserve Component building. A shelter run by Montgomery County, Maryland, has opened at the Forest Glen Annex of the Walter Reed Army Medical Center. Still another shelter has been established at the Naval Reserve Center in Lawrence, Massachusetts. DoD will continue to work in partnership with elected officials and religious and charitable organizations to assist them in opening shelters whenever agreements can be reached.

8. Conclusion

We have made significant progress in our installations efforts, but there are always opportunities for improvement. By continuing to refine our efforts, there are still several ways we can save even more money and meet the needs of our servicemembers more efficiently.

I. SPECIAL INTEREST PROGRAMS

1. Command, Control, Communications, and Intelligence (C^3I)

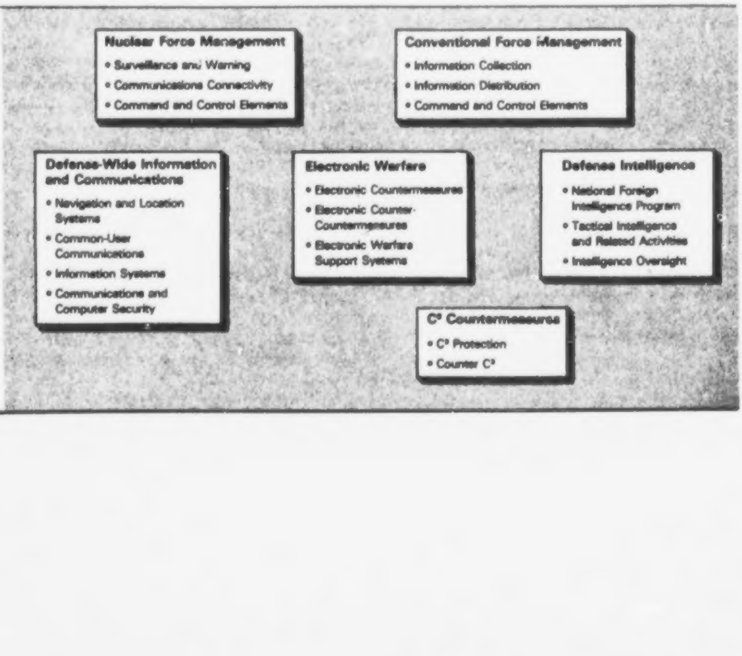
a. Introduction

Our command authorities, both military and civilian, require timely, accurate, and unambiguous information to plan military operations and to select alternative courses of action. All commanders and their staffs must then be assured that the decisions and direction emanating from this information can be clearly and accurately communicated to the forces and weapons systems under their control. We refer to this process as command and control and to the systems that provide this capability as C^3I. Typically these systems consist of an array of sensors, communications links, command and control support facilities, and information processing and display equipment. Collectively, these systems constitute a significant combat multiplier.

Our primary goal is to provide C^3I systems that maximize the performance of our weapons systems and the operability of our forces in terms of survivability, endurability, interoperability, and effectiveness. To accomplish this, we provide management and oversight through a mission area structure illustrated in Chart III.I.1. Details on the progress of C^3I programs solely supporting the nuclear forces or the conventional forces, depicted in the upper two boxes, are provided in the sections of this report that deal with these topics. This is in keeping with our insistence that resources necessary to provide adequate force management be considered whenever weapons and force structure improvements are implemented.

The C^3I programs and management initiatives described below emphasize those capabilities needed to support several, or all, warfare areas and those of special importance to combined, joint, and coalition warfare tasks. These mission areas are shown on the lower portion of Chart III.I.1.

Chart III.I.1
C^3I Mission Area Structure


Nuclear Force Management
• Surveillance and Warning
• Communications Connectivity
• Command and Control Elements
Conventional Force Management
• Information Collection
• Information Distribution
• Command and Control Elements
Defense-Wide Information and Communications
• Navigation and Location Systems
• Common-User Communications
• Information Systems
• Communications and Computer Security
Electronic Warfare
• Electronic Countermeasures
• Electronic Counter-Countermeasures
• Electronic Warfare Support Systems
Defense Intelligence
• National Foreign Intelligence Program
• Tactical Intelligence and Related Activities
• Intelligence Oversight
C^3 Countermeasures
• C^3 Protection
• Counter C^3

b. Defense-Wide Communications and Information Systems

Defense-wide systems support nuclear as well as conventional force management. During FY 1984, we emphasized improvements to defense-wide systems that would enhance their survivability and endurance during periods of conflict. The five-year program pursues improvements in four broad areas: navigation, communications, information systems, and computer and communications security.

(1) Navigation and Location

Accurate navigation and position location information is essential to the timely deployment and management of forces and equipment both in peacetime and during conflict. Our efforts to improve our navigational capabilities center around the acquisition of the Navigation Satellite Timing and Ranging (NAVSTAR) Global Positioning System (GPS). This space-based system will provide our forces with highly accurate position, velocity, and timing information on a continuous basis. In FY 1984, we launched two research and development (R&D) satellites that support tests of the navigation equipment used in a wide variety of operational platforms, including ships, aircraft, and vehicles. The project remains on schedule for completion in 1988, when the full 18 satellite network will be completed, thereby providing a worldwide three-dimensional capability.

(2) Common User Communications

The Defense Communications System (DCS), consisting of both government and commercial facilities, provides global telecommunications service to DoD. Our goal is to improve the operability of DCS during wartime, while reducing peacetime operating costs. Major accomplishments in pursuit of that goal are discussed below.

(a) Defense Satellite Communications System (DSCS)

In order to improve the jam-resistance of this major satellite system, additional antijam modems were installed during FY 1984 at selected key locations. An antijam network among these and additional locations will be operational in early FY 1985.

(b) Inter-Service/Agency Automated Message Processing Exchange (I-S/A AMPE)

This program will field approximately 90 I-S/A AMPE systems to replace a wide variety of the current Service/Agency exchanges and automatic voice network (AUTOVON) switching centers. Existing systems do not provide the requisite security to support full DoD operational requirements. I-S/A AMPE will improve the survivability of the record message network by increasing the number and dispersal of switching sites. Proposals for production of this system were received in FY 1984 with contract awards expected in early FY 1985.

(c) Defense Switched Network (DSN)

The existing AUTOVON and other telephone systems will gradually be converted into a new system called the Defense Switched Network (DSN). Our goal is to replace obsolete, manpower intensive telephone systems with more modern, survivable networks. The contract for the Defense Commercial Telecommunications network for CONUS connectivity was awarded in FY 1984. Installation of new switches in Europe as part of the European Telephone System upgrade also began in FY 1984. In addition, a request for proposal for the upgrade of the Oahu Telephone System has been issued, and we expect to begin this upgrade of voice communications among DoD installations in Hawaii in FY 1985.

(d) Defense Data Network (DDN)

Expansion of the DDN was accomplished in FY 1984 and will continue over the next five years. End-to-end encryption devices are expected to become available during 1985. This will permit integration of the several classified segments operating at various security classification levels into a single classified segment, thus providing increased capability and responsiveness to information exchange.

(e) Secure Voice System (SVS)

The number of secure voice users will be increased significantly with the implementation of the Secure Voice Improvement Program (SVIP). This program shares equipment and facilities with the Federal Secure Telephone System and will be interoperable with other DoD and civilian networks. Under the Secure Conferencing Project (SCP), survivable secure voice and a graphics conferencing capability will be provided to command centers worldwide.

(3) Worldwide Military Command and Control System (WWMCCS) Information System

National Command Authorities (NCA) and subordinate command echelons require data processing and display systems, which are an element of the WWMCCS, to give them information on the status and location of their forces and on the availability of support materiel and facilities. The WWMCCS Information System (WIS) program includes near-term enhancements for WWMCCS Automatic Data Processing (ADP) computers and related facilities. An extensive and evolutionary modernization of the total system is programmed in two major contracts that were awarded during FY 1984. The NORAD - Cheyenne Mountain Complex ADP equipment is also being modernized to satisfy C^3I requirements unique to operations in space.

(4) Computer and Communications Security

Computer and communications security programs are designed to ensure that these assets cannot be disrupted or used by anyone not properly authorized. The Computer Security Evaluation Center is currently examining ways to prevent unauthorized use of DoD computer assets. During FY 1984, we published technical specifications and criteria to assist our computer users in the evaluation of the security aspects of their systems. Additionally, we examined ways to reduce the cost and long lead-time associated with the acquisition of communications security (COMSEC) equipment. Streamlined procedures for managing and acquiring COMSEC equipment were also introduced this year.

c. Electronic Warfare (EW)

EW includes the use of electromagnetic energy to limit hostile use of the electromagnetic spectrum, while retaining friendly use of this resource. We are continuing to emphasize EW by maintaining a technological advantage in the face of a threat that is growing in both the quantity of weapons systems available and in the technical sophistication of these systems. Acquisition and investment strategies have been developed by the Services and serve as the basis for meeting the readiness objectives of our commands.

(1) Threat Warning and Self-Protection

Programs in this area provide protection for our combat vehicles, primarily aircraft and ships, through the use of threat warning and electronic countermeasures systems. Threat warning systems provide the information needed to select an appropriate response option such as avoiding, suppressing, jamming, or destroying the enemy threat. Two major joint Navy/Air Force programs in this area are the Airborne Self-Protection Jammer (ASPJ) for our frontline fighter/attack aircraft, such as the F/A-18 and the F-16, and the Integrated Electronic Warfare System (INEWS), which will protect our new design aircraft into the next century.

(2) Electronic Countermeasures (ECM)

Standoff escort jamming complements our self-protection systems by degrading enemy early warning and ground control intercept sensors. By denying the enemy use of his sensors, his weapons fire becomes less effective. The two main support aircraft used for this purpose are the EA-6B (Navy and Marine Corps) and the EF-111A (Air Force). Both systems are operational and, with improvements, will maintain their effectiveness through the 1990s.

d. Command, Control, and Communications Countermeasures (C^3CM)

C^3CM is a strategy that integrates four fundamental approaches: destruction, disruption, deception, and denial of information to our adversaries' C^3 systems, while protecting friendly C^3 systems from the enemy's C^3CM systems. The Services are developing capabilities such as the Air Force's Compass Call communications jamming aircraft and the AN/ALQ-149 for the Navy's EA-6B aircraft to support implementation of C^3CM strategies.

e. Intelligence Programs

DoD intelligence programs obtain military information about foreign activities and furnish it to national, departmental, and tactical users. Signals intelligence, imagery, and other technical collection capabilities allow decisionmakers to respond to near-term military, diplomatic, and economic developments in foreign countries. On the operational side, these intelligence capabilities enable weapons planners and operators to improve warfighting equipment and adjust battle plans. Our intelligence activities are accounted for in either the National Foreign Intelligence Program (NFIP) or Tactical Intelligence and Related Activities (TIARA). While the Director of Central Intelligence, under Presidential direction, provides guidance and develops the overall NFIP, the TIARA program is developed and managed by the Services and Agencies in response to operational commanders' intelligence requirements. All TIARA programs are administered under the cognizance of the Deputy Assistant Secretary of Defense (Intelligence).

DoD is pursuing an aggressive policy incorporating interoperable and survivable intelligence support systems capable of meeting the needs of the unified and specified commands for joint and combined operations. This unified and specified command planning perspective is being developed by the Defense-Wide Intelligence Plan, which includes the Intelligence Communications Architecture (INCA) and the Imagery Acquisition and Management Plan (IAMP). During FY 1984, we awarded the contract for INCA development and completed Phase I of IAMP. We also continued to procure TR-1 aircraft for a variety of sensor needs.

The Assistant to the Secretary of Defense (Intelligence Oversight) is responsible for the independent monitoring of all DoD intelligence and counterintelligence activities to ensure their legality and propriety. He inspects DoD intelligence elements worldwide and monitors inspections of such units by the Inspectors General (IGs) of the Services and the Defense Agencies. This past year he conducted 79 inspections of DoD intelligence elements and monitored 55 IG inspections of NSA, DIA, and Service intelligence activities. He reviewed several inquiries into allegations of questionable activities to assure that all aspects of the matter had been investigated and that appropriate corrective measures had been taken. He serves as the DoD point of contact with the President's Intelligence Oversight Board and, together with the DoD General Counsel, submits a quarterly report to the Board that describes DoD intelligence oversight activities.

f. Conclusion

We have made substantial progress over the past several years in modernizing our C^3I systems into a more reliable, survivable, and flexible capability. We have also improved total mission effectiveness in the C^3I area through several management initiatives, including the establishment of the Joint Tactical C^3 Agency in July 1984, and extensive use of our consolidated C^3 management procedures. While evolutionary development, acquisition of nondevelopmental items, and restructuring of long-term programs all contribute to overcoming C^3I shortfalls, only a firm commitment to keep our force management capability on par with our weapons and force structure will achieve the desired goals.

2. Research and Development (R&D)

An essential element of our defense is our R&D effort. This investment ensures that the most militarily effective equipment is placed in the hands of our soldiers, sailors, airmen, and marines in the field. This equipment must be reliable and producible at an affordable cost.

In the decade 1972 to 1981, our principal adversary, the Soviet Union, more than doubled its defense-related R&D spending. In contrast, U.S. defense-related R&D expenditures remained level or declined until 1981. Even with recent increases, U.S. investment in this area is only half of the estimated Soviet investment. R&D investment is, by its nature, long-term, representing future military capability. Because of this long-standing disparity in Soviet and U.S. defense investment, it is essential that we continue to increase our R&D investments to ensure our ability to deal with any future threat successfully. Our goal is to ensure that we maintain the technological edge in deployed military equipment and to exploit technology so that our forces maintain both a credible deterrent and warfighting capability.

The strategic, tactical, chemical, test and evaluation, C^3I, and Strategic Defense Initiative (SDI) objectives and status are discussed in detail elsewhere in this report. Therefore, we will describe here only the cross-cutting mission areas of science and technology, advanced research projects, and nuclear weapons development.

a. Science and Technology (S&T) Program

The Science and Technology (S&T) Program is dedicated to the preparation of tomorrow's forces to deter and, if necessary, engage and defeat tomorrow's threats. It is imperative that we provide now for the technological innovations required by future developers to design and test effective weapons systems for use by our forces in the field. This investment in the future is necessary if we are to maintain a strong and effective national security posture and if we are to deter aggression.

(1) Objectives

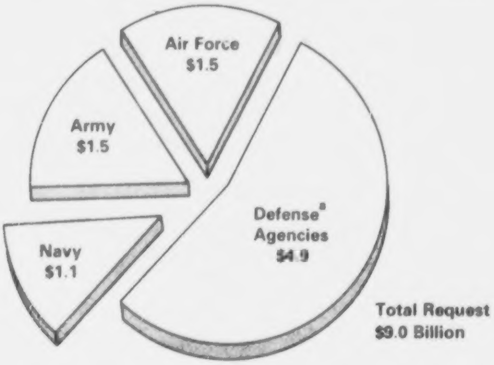
Elsewhere in this report, we have described the enormous arms buildup by the Soviets during the 1970s, while U.S. defense spending declined. During the past four years, however, we have made considerable progress toward both restoring the readiness of our Armed Forces and investing to modernize aging military equipment. A substantial part of this investment has been allocated to long-term, high-quality, technological improvements that will be required in the late 1980s and early 1990s. The qualitative advantage that we currently enjoy will remain a key factor in maintaining a technological edge over our principal adversary, whose numerical advantage presents a formidable threat.

(2) Programs

The S&T program encompasses a wide array of projects ranging from basic research to technology demonstrations in an operational environment. The Services manage about 46 percent of the program with the Defense Agencies administering the remainder (Chart III.I.2).

Chart III.I.2

FY 1985 Science and Technology Program
(Dollars in Billions)



[a] Includes Strategic Defense Initiative funding.

The following paragraphs present highlights of Service-specific S&T programs. Defense Agency programs are discussed in appropriate sections of this report.

(a) Very-High-Speed Integrated Circuits (VHSIC)

We have made significant progress toward our goal of increasing the U.S. lead in integrated circuit technology deployed in weapons systems by minimizing the time delay between technology development and deployment. All of the VHSIC 1.25 micrometer contractors have produced fully functional VHSIC devices, and the first insertion of VHSIC into an operational system will occur this year. Thirty-seven weapons systems have been scheduled for VHSIC technology insertion. In addition, we have begun the development of second generation VHSIC chips, which will provide another hundred-fold improvement in processing power. These new chips will greatly increase the warfighting capability of our weapons systems in the 1990s.

(b) Computers and Software

Many of our military systems are dependent upon computers and software for their effective operation. Over the past two years, we have initiated two very important Tri-Service programs to improve our ability to produce and support operational software for mission-critical systems. The first of these, the Software Technology for Adaptable, Reliable Systems (STARS) Program will create a system of computer-aided techniques and methods for the development and support of mission-critical software. The objective of this program is to provide a ten-fold reduction in the cost of software development and evolution and in the number of latent defects in software systems. The second program involves the creation of a Software Engineering Institute, the purpose of which is to overcome the traditional fielding lag in maturing new technologies and to accelerate the application of new software technology to military systems. The Institute will combine advanced methods emerging from the private research community with an integrated computer-aided software development system and technology produced by STARS to demonstrate their application in weapon systems programs.

(c) Medical and Life Science Program

The Medical and Life Science Program has as its objective to maximize human operator efficiency in any anticipated operational environment. For example, combat capability can be enhanced by the development of techniques or equipment that would allow pilots to fly new, highly maneuverable aircraft while minimizing the effects of G-forces that might otherwise prevent exploiting the full performance envelope of the aircraft. Combat effectiveness is also improved by the development of vaccines to prevent diseases that in the past have removed many troops from combat. Further, equipment and methods to treat combat casualties by reducing disability or promoting rapid return to combat permit more efficient utilization of personnel. These and other aspects of the program contribute significantly to keeping our forces on the job and performing as intended.

(d) Training Programs

Training unskilled military personnel to meet the operational and maintenance requirements of combat equipment is the primary goal of our education and training technology program. During the coming year, DoD will emphasize the development of advanced portable maintenance training equipment to provide both information and training to personnel. These information and training systems are capable of rapid adaptation through microprocessors to meet changing user and operational system needs. A training package adaptable to the M1 tank system, for example, is expected to reduce classroom training time by 30 percent. We will continue to emphasize state-of-the-art training systems both to expedite and facilitate the training process while reducing overall training costs.

(e) Chemical Defense Program

The development of an effective chemical defense capability is an important aspect of our technology program. Recent developments have improved our chemical protective posture. Using fundamental biotechnology principles, a toxin detection and identification dipstick has been developed. Also, monoclonal antibodies with greatly enhanced affinity for the nerve agent soman have been demonstrated. Production will continue on a portable contamination monitor, which will provide U.S. troops with an effective hand-held agent detection device. These and other developments in detection and decontamination have improved the overall readiness of our forces by enhancing their protection and survivability in a contaminated environment.

(f) Basic Research

University research is an important component of the S&T program. It is a source of new ideas, new techniques, and new knowledge, all of which are vital in maintaining the technology leverage we currently enjoy. Over the past four years, the involvement of the university community in the DoD research program has increased substantially. University research activity in defense-related technology areas will provide a sound base for the development of long-range technology options required to solve future national security problems. We remain committed to improving the research capability of the nation's universities. Toward that end, we are emphasizing increased basic research funding and continued efforts to improve the instrumentation used in university research.

In addition, we are increasing the interaction between the university research community and industry through the Independent Research and Development (IR&D) and the Small Business Innovative Research (SBIR) programs. These programs, selected and managed by private industry, stimulate competition by increasing the capabilities as well as the number of companies with expertise in defense-related areas. A stronger industry/university interaction will foster a more rapid transition from concept, to research, to product. Also, under the SBIR program, small businesses supported by DoD are identifying innovative high-technology concepts for DoD needs. Funds for SBIR will total one percent of our contractual R&D budget in FY 1986.

(g) Joint Technology Demonstrator Engine (JTDE)

The JTDE program, a joint Air Force/Navy effort, has recently demonstrated significant performance improvements in experimental large fighter engine configurations. These advanced technology configurations provide a foundation for the new Joint Advanced Fighter Engine (JAFE) for the next generation air superiority fighter. A major JTDE effort in the next two years will be the completion of engine life assessment tests to ascertain whether the JAFE can avoid the durability problems and performance tradeoffs plaguing previous fighter engine developments.

(h) Materials and Structures

The Advanced Materials Technology Base continues to provide significant contributions to the effectiveness, reliability, and maintainability of both fielded equipment and weapons systems in development, while concurrently establishing high-payoff technological options for new systems. We currently lead the world in composite materials technology. This contributes substantially to the attainment of superior performance capabilities of U.S. military equipment. In FY 1986, enhanced survivability of aircraft, missiles, and spacecraft, as well as appropriate components of SDI will be emphasized through the continued development of metal-matrix composites.

b. The Defense Advanced Research Projects Agency

The Defense Advanced Research Projects Agency (DARPA) continues to provide corporate research support for DoD. Its research projects are carefully selected to maintain the U.S. technological lead and avoid potential adversarial technological surprises. While the Agency's projects are high-risk, they have high potential payoff in military utility and are frequently applicable to multi-Service use. Maturing technology is often taken into the field for feasibility demonstration with the Services, which are then in a position to advance the technology through the development process.

The FY 1986 DARPA budget request reflects a rebuilding of the technology base and a reconstitution of the technology demonstration initiatives since the major FY 1985 redirection, which resulted in the transfer of directed-energy, surveillance, kinetic energy weapons technology, and support programs to the Strategic Defense Initiative Organization (SDIO).

DARPA's research programs cover a broad spectrum of technologies; some of its major efforts are discussed below.

(1) Strategic Computing

The Strategic Computing program is developing a class of super-intelligent computers for application to advanced defense systems by the end of the decade. These new machines will be capable of "vision" for autonomous vehicle navigation, "understanding natural language" (English), and "speech recognition" for use in a fighter cockpit and command center. In addition, advanced expert systems will be developed that can store and manipulate knowledge in any of these fields to allow machine-reasoning and inferencing. Small-scale feasibility demonstrations of these concepts have been carried out in the laboratory, but they need to be engineered for application to practical defense systems. High performance computers will be needed to carry out these functions to meet the real-time demands of field operations. A new family of computers, 1,000 times faster than existing equipment, is being pursued using multiprocessor computer architectures and state-of-the-art VLSI (very large scale integration) components.

(2) Advanced Cruise Missile Technology

Development of carbon-carbon composite jet engine turbine components has advanced through high-speed spin tests where structural integrity was validated. Over the next few years, full-scale carbon-carbon components will be fabricated and installed in high performance testbed engines for proof of concept testing. These turbines will be capable of operating at inlet temperatures up to 3,500°F. This is over twice the capability of current cruise missile engines and will significantly extend future cruise missile performance.

(3) Submarine Laser Communications (SLC)

Submarine Laser Communications (SLC) will provide real-time communications, using blue-green lasers, to submarines at depths that increase security for strategic missile submarines while maintaining survivable communications and constant connectivity.

By the end of FY 1987, the DARPA SLC program will have resolved the remaining technical issues needed for an informed decision to institute a satellite program. A brassboard transmitter and submarine-qualified atomic resonance receiver will have been produced and tested.

c. Nuclear Weapons Program

(1) Modernization Program

DoD and DoE share statutory responsibilities, under the provisions of the Atomic Energy Act of 1954, for managing the U.S. nuclear weapons program. DoE is structured to support approved DoD programs to modernize our nuclear forces. The goal of our program is to improve military effectiveness, safety, security, survivability, and endurance in all environments.

The deployment of GLCM and Pershing II nuclear weapon systems during the past year demonstrates the progress of our nuclear weapons modernization program. In the near- and mid-term, we will continue the development and production of previously authorized weapons. We are emphasizing incorporation of the modern safety and command and control technology in these weapons.

It is essential that modernization be a continuous process. With this in mind, we initiated an effort with the military Services, DoE, and the National Weapons Laboratories to clarify and stimulate our thinking and understanding of nuclear weapons requirements in the 1990s and beyond. Working groups have been established to address specific topics and potential future needs. We intend to continue this type of interchange to ensure a rational, long-term weapons development program.

While much progress has been made, we must continue to strive to meet our objective of fielding adequate quantities of effective systems. Achieving our goals depends on continued congressional support. We intend to work closely with DoE and the appropriate congressional committees and their staffs to explain and justify our nuclear modernization program.

(2) Defense Nuclear Agency (DNA) Programs

DNA conducts DoD's nuclear weapons effects research program. DNA's most recent activities include responding to the President's Commission on Strategic Forces, which recommended that this Agency lead the effort in resolving those uncertainties regarding attainable hardness levels of strategic missile silos, shelters, and mobile systems. In addition, DNA has been given the responsibility for assuring that nuclear survivability be considered in all new weapons systems required to operate in a nuclear environment. New technology and procedures are being developed to assure continued survivability for strategic and tactical nuclear forces in light of more accurate and larger-yield Soviet missiles.

DNA will conduct a joint demonstration of the capabilities that can be achieved by a Strategic Air Command (SAC) command post using the Defense Communications Agency (DCA) module building block concept of shelters, computers, and communications systems. By the application of modern technology, DNA will be able to simulate multiple attack scenarios at all levels of command in both fixed and mobile centers.

Construction of the major underground nuclear effects tests, MIDDLE NOTE and MISSION CYBER, will be completed. Both tests will directly support advanced systems development, as well as some specific missile system and satellite components.

DNA also provides significant support to the SDI program, with major projects conducted in the fields of weapons lethality, system survivability, and infrared backgrounds and measurements in a nuclear environment. These projects build on fundamental technologies developed in past DNA programs, which will rapidly produce the data required by the SDIO through a program of careful test, analysis, and experimentation.

3. Test and Evaluation (T&E)

The T&E organization within DoD has undergone considerable review and restructuring within the past year. The Office of the Director, Operational Test and Evaluation was established to be independent of all research and development activities and to oversee all operational testing in DoD. At the same time, the Office of the Director, Defense Test and Evaluation has continued to implement developmental-related initiatives to enhance and modernize our test capabilities, continue vital joint Service test efforts, and improve testing capabilities and productivity through international arrangements and cooperative activities.

a. New Emphasis on Operational Test and Evaluation

In response to Public Law 98-94, we have established and staffed a new office of the Director, Operational Test and Evaluation, which reports directly to the Secretary of Defense on the conduct and adequacy of operational testing of all major weapons systems in the Department. Establishment of this office has resulted in more stringent oversight and emphasis on thorough planning, adequate funding, proper conduct, and independent evaluation of all test activities within the Department. The office submitted its first annual report to the Congress on operational testing and subsequently augmented it with a supplemental report. Other activities currently under way include a review of operational test policy, review of test plan adequacy for eight major acquisition programs prior to the initiation of operational testing, and assessment of programs now being considered for procurement at rates above low-rate initial production. In addition to oversight of major weapons systems, the office has assumed management responsibility for two joint operational tests that will provide valuable insight into the effectiveness of Joint Service tactics and operational procedures involving chemical warfare doctrine and joint logistics operations over unprepared beaches.

b. Enhancing Our Test Capabilities

The Tri-Service development program established last year by the Director, Defense Test and Evaluation to develop threat radar simulators is now developing a data base for use in simulating state-of-the-art threat air defense systems. An integrated program will consolidate scientific and technical intelligence, surrogate testing, and simulator development. This same program will catalog the requirement for threat simulators.

A supersonic low-altitude aerial target to replicate the high-speed, low-altitude dash threat of antiship missiles is being developed for deployment by late FY 1989. Also by FY 1989, a new subscale, subsonic target will replace older, costlier systems and provide testing for counterair systems. A new Army helicopter aerial target needed to test battlefield air defense systems is scheduled to be fielded by FY 1987.

Modernization of our test facilities and resources is continuing with such programs as the Army's High Energy Laser Systems Test Facility (HELSTF) and the Air Force's Radar Target Scattering Advanced Measurement System (RAMS), both of which will reach operational capability in FY 1985.

c. Joint Test and Evaluation (JT&E) Programs

In FY 1986, five ongoing tests managed by the Director, Defense Test and Evaluation will examine the capability of developmental and deployed systems to perform their intended mission in a joint environment. These tests include evaluation of command, control, and communications countermeasures; identification of friend, foe, or neutral systems; forward-area air defense capabilities; electro-optical guided weapon countermeasures and counter-countermeasures; and live munitions effects on foreign and domestic armor and aircraft.

d. International Test and Evaluation Initiatives

Under the provisions of an international agreement with Canada, the Air Force successfully completed captive carry flights of the air-launched cruise missile in March 1984, and the Navy conducted combined operational tests of the AV-8B and F/A-18 in October 1984 along with testing of the Air Force's Low-Altitude Navigation and Targeting Infrared System (LANTIRN). Operational test flights of the F/A-18 will be conducted in the spring and summer of this year. The Canadian-U.S. agreement is affording DoD an inexpensive opportunity to test weapons systems in realistic battlefield conditions and geophysical environments replicating those in Europe and Eurasia. New cooperative agreements are also being formulated with France, the United Kingdom, and the People's Republic of China to assist them in the long-term improvement and modernization of their testing capabilities.

In the past year, the Foreign Weapons Evaluation program has selected five more foreign systems for use by the Services. Since its inception in FY 1980, the program has resulted in 18 items of equipment being selected for the U.S. inventory with a procurement value of nearly one billion dollars. By capitalizing on the research and development efforts of our allies, we have been able to obtain $20 of procurement value for every test dollar invested compared to a return of $3.20 in procurement value for every RDT&E dollar invested in domestic programs. With its added features of increased interoperability and standardization with our allies, this successful program has established visible milestones along the two-way street of international cooperation.

4. Security Assistance

a. Introduction

Security assistance programs contribute directly to the national security of the United States by helping friendly and allied countries defend themselves. Through the sale of equipment and services, some of which are supported by financial assistance, our programs enable recipient countries to make better use of their own resources, assist in fostering greater military self-reliance, and advance the shared goal of collective security and regional stability around the world.

At the same time, these programs promote closer military working relationships between U.S. forces and the armed forces of other countries, help strengthen our alliance relationships, and improve our power projection and forward defense capabilities through access to overseas facilities and retention of base rights abroad. They also enhance our ability to interact with other friendly forces through improved commonality of equipment and training, thus adding a force multiplier to U.S. capabilities. In each instance, security assistance has been an essential foreign policy tool for obtaining or retaining these defense benefits.

The national security value of the security assistance program, including the economic portions, clearly exceeds the face value of its costs. Without the direct and indirect benefits we gain, the projected demands of the defense budget would be far greater.

b. Programs

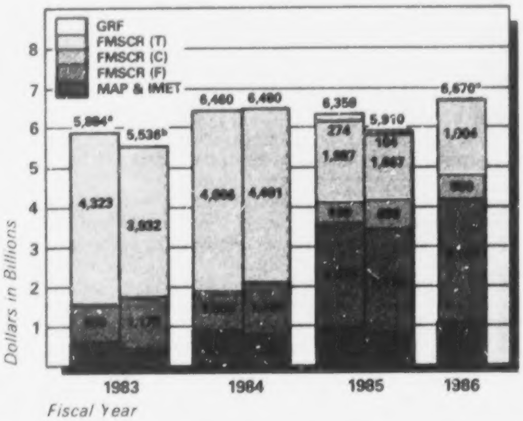
By statute, the Secretary of State has responsibility for determining the direction and extent of security assistance programs. DoD has primary responsibility for such areas as releasability of technology and the procurement and supervision of military end-items. Both Departments work together to develop the annual State Department sponsored budget request and to ensure that the overall program operates to maximize our collective security interests. DoD administers the Foreign Military Sales (FMS) cash sales program, which is the largest program, the Foreign Military Sales Credit (FMSCR) financing program, the grant Military Assistance Program (MAP), and the International Military Education and Training (IMET) grant program.

All but the FMS cash program are financed by the U.S. government, and the FMSCR program itself is composed of loans offered at the current cost of borrowing by the U.S. Treasury, concessional credits (as low as 5 percent interest), and foreign credits (i.e., payments waived) for Israel and Egypt. In addition, Economic Support Funds

(ESF) are programmed by the State Department for countries with which we have a security assistance relationship and are generally regarded as part of security assistance. Administered by the Agency for International Development (AID), ESF is a form of economic assistance and may not be used to purchase military goods and services. Chart III.I.3 summarizes the program levels over the past four years and the proposed FY 1986 levels.

Chart III.I.3

Military Assistance: FY 1983 - 1986



ᵃ Request ($ in Millions)

ᵇ Actual Funding ($ in Millions)

c. Recent Record

Over the past few years, our security assistance programs have contributed greatly to the resolution or containment of conflicts around the world and in the improvement of our relations with a large number of countries.

We have expanded existing programs with Egypt and Turkey and made a substantial effort in Central America. Our program with Pakistan was revived during this time, and we have begun military sales discussions with the People's Republic of China (PRC), while preserving our relationship with Taiwan.

These programs also played a key role in the containment or lessening of conflicts around the world. Our assistance helped prevent the outbreak or escalation of conflicts in Morocco, Chad, Somalia, Yemen, the Persian Gulf, on the Pakistan-Afghanistan border, and in Thailand and Korea. We are making progress in Central America.

We concluded critical base rights renegotiations in Turkey, Spain, Portugal, Greece, and the Philippines, where the promise of security assistance funding greatly facilitated successful agreements. Without these agreements we would be severely constrained in any potential conflict scenarios involving NATO, the Middle East, or the Far East.

Additionally, we have responded quickly to assist countries facing crises without any significant reduction of our readiness or major diversions of U.S. military equipment.

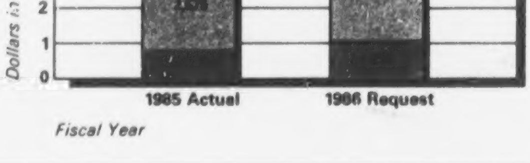
Of course, not all conflicts have been resolved or contained, and not all relations with other countries are as satisfactory as we would prefer. Funding and legal limitations lessen the flexibility we would want, but, on balance, we have established the United States as a reliable partner with more countries than ever before.

d. The FY 1986 Request

In FY 1985, the Administration launched, and the Congress approved, a major new initiative to place the entire security assistance program on-budget, thereby converting the guaranteed loan program to all direct loans. As a result, we are now able to provide a portion of our loans at reduced interest charges to countries that meet certain economic criteria. We have also obtained increased grant levels from the Congress. A key objective behind this proposal was to avoid adding to the debt-servicing burden of many Third World countries. We are again recommending concessional credits for qualifying countries and additional grant levels for those countries with greater economic needs. However, a significant portion of FMS credits will still be extended at prevailing near market interest rates. The MAP request would increase the grant program by $144.25 million. Many of these funds would go to African and Latin American countries, which are of increasing strategic importance.

Overall, the security assistance request for FY 1986 totals $6.67 billion in FMS credits, MAP grants and IMET, a 13 percent increase over FY 1985 (see Chart III.I.4). Our request continues

Chart III.I.4
FY 1985 - 1986 Military Assistance



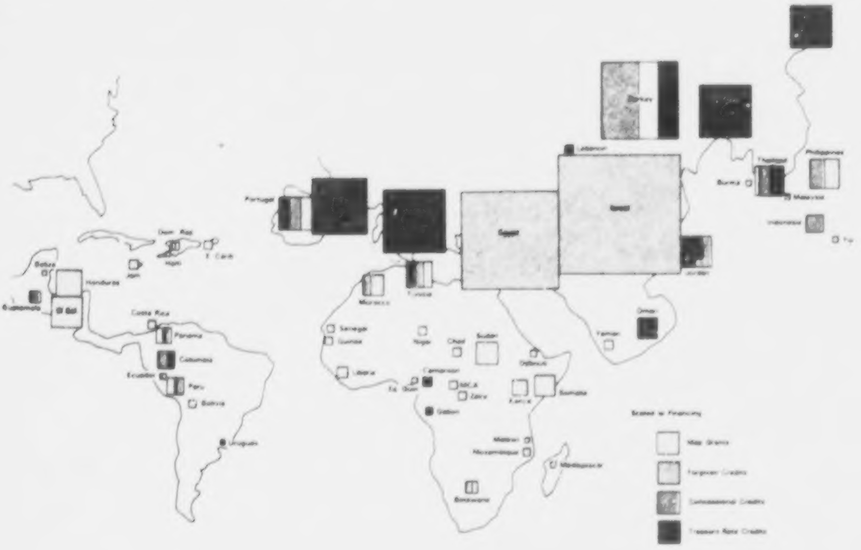
* Includes $109 M Guaranty Reserve Fund

most country programs at their current levels or provides for modest increases over last year. The major increase over FY 1985 funding is primarily for Israeli and Egyptian forgiven credits and a smaller amount of MAP funds for economically hard-pressed countries.

The accompanying security assistance map of the world (see Chart III.I.5) depicts countries proportionally according to the size of the proposed FMS/MAP programs for FY 1986. Twenty-seven countries would receive FMS loans. Of the 27 countries, 2 (Israel and Egypt) would receive forgiven loans; 15 would receive concessional credits only; 10 would be offered market rate loans only; and 6 countries would be considered for both concessional and market rate loans. We are proposing MAP funds for 35 countries, some of which would also receive FMS credit funds.

Chart III.I.5

FY 1986 FMS/MAP Financing Request


Turkey
Lebanon
Thailand
Philippines
Burma
Malaysia
Indonesia
Fiji
Portugal
Egypt
Israel
Jordan
Oman
Yemen
Dom. Rep.
Haiti
E. Carib.
Belize
Honduras
Jam.
Guatemala
El Sal.
Costa Rica
Panama
Colombia
Ecuador
Peru
Bolivia
Uruguay
Morocco
Tunisia
Senegal
Guinea
Niger
Chad
Sudan
Djibouti
Liberia
Cameroon
Eq. Guin.
Zaire
Kenya
Somalia
Gabon
Malawi
Mozambique
Madagascar
Botswana
Scaled to Financing
Map Grants
Forgiven Credits
Concessional Credits
Treasury Rate Credits

Our foreign military training fosters stronger military-to-military linkages and enables recipient countries to utilize the defense articles acquired from the United States more effectively. Most training in the United States involves foreign military and civilian personnel enrolled in formal courses and orientation tours where they gain valuable on-the-job experience and are exposed to U.S. culture and society. The temporary move of the U.S. Army School of the Americas from Panama to Fort Benning, Georgia, will mean that most foreign military training for Western Hemispheric nations will be conducted in the United States, at least for the present time.

The grant IMET program has been the mainstay of our training program, and we are requesting $65.65 million for FY 1986, which is about 1 percent of the total security assistance request. The increased IMET funds and the reduced training costs for FMS authorized in FY 1985 should help provide training to foreign students at numbers approaching those of the mid-1970s. The number of countries participating in IMET has grown too -- some 90 countries were offered IMET funds last year, an increase of almost 30 countries over the past four years.

The Administration is also requesting authorization to increase the value of the war reserve stocks in Korea (WRSA-Korea) by $360 million and to increase appropriations for the Special Defense Acquisition Fund (SDAF). We are also requesting an increase of the capitalization ceiling to $1.5 billion, adding $325 million in obligational authority, and seeking greater flexibility in managing the SDAF in FY 1986. The SDAF enables the United States to make advance procurements in anticipation of foreign sales, thereby minimizing drawdowns from U.S. forces while protecting U.S. force readiness. These SDAF funds would come from past foreign military sales receipts, not from the U.S. taxpayers.

5. International Armaments Cooperation

The goal of our international coordination and technology transfer programs is to develop, field, and support -- through equitable burdensharing -- the most effective and interoperable conventional military equipment for our forces and those of our allies and friends. Our armaments cooperation activities focus on NATO cooperation first but also involve many other allied and friendly countries with whom we share security interests.

Last June, DoD transmitted to the Congress a statement defining recommended improvements to NATO's conventional capabilities. The continued vitality of the Alliance stems both from its military capabilities and from the cohesion and determination of its members. The military capabilities comprise a balanced triad of conventional, nonstrategic nuclear, and strategic nuclear forces, the first objective of which is to deter an attack by persuading a potential aggressor that his military objectives cannot be attained at an acceptable risk or cost. This defense policy and military strategy require a sharing among the allies of both the risks and the burdens of deterrence and defense.

Armaments cooperation remains a primary element in increasing the conventional capabilities of the Alliance. The Alliance can only achieve its stated objectives if all members recognize that collective security depends upon military, economic, and industrial cooperation. We must capitalize on each opportunity to support rationalization, standardization, and interoperability (RSI) to make the most efficient use of limited resources and increase combined combat capabilities. This requires joint effort and the exchange of military technologies and goods when in our national interests, and it requires the denial of militarily critical technologies and goods to our potential adversaries in order to preserve our own technical advances.

We are also cooperating with Japan, Israel, the Republic of Korea, and other allied and friendly nations in fulfilling these same goals, but in a bilateral, not multilateral, manner. Our focus is upon defined forces and missions that meet both our objectives and theirs.

a. Objectives

Our primary objectives are to develop and maintain a credible, collective nonnuclear forces capability in areas of potential coalition operations, as well as an environment that fosters maximum use of combined technological and industrial capabilities.

b. Current Programs and Initiatives within NATO

Armaments cooperation is improving both within the NATO Conference of National Armaments Directors (CNAD) and its main groups, as well as through a series of bilateral and multilateral agreements for specific development and production programs.

The broad infrastructure for cooperation continues to expand as more industry-to-industry relationships are developed. The Multiple-Launch Rocket System (MLRS) is an example of a U.S. system with early European involvement. The AV-8B Harrier, on the other hand, is a European system with U.S. industrial teaming arrangements for co-production. The three-nation Rolling Airframe Missile (RAM) pro-program and the four-nation terminal guidance warhead for the MLRS program are cooperative developments involving technology sharing across national lines.

With congressional support and approval, significant improvements have been made in NATO's air defense coverage. Innovative agreements have been signed with Germany and the Netherlands authorizing their acquisition of the Patriot air defense system. A similar agreement with Belgium is now being pursued. This will result in enhanced effectiveness and interoperability of NATO's air defense capabilities.

The NATO initiative to exploit emerging technologies to improve conventional defense will help focus Alliance resources on improving conventional capabilities within this decade, e.g., forward defense, attack of follow-on forces, counterair, C^3I, and C^3CM. A small number of programs have been identified for priority action, with more proposed by both the United States and the Independent European Program Group (IEPG) nations.

c. Cooperation with Non-NATO Allies and Other Friendly Nations

The United States also shares strategic and security concerns with our non-NATO allies, as well as other friendly nations with whom we have no alliance agreements. Our objectives with these nations are to enhance mutual security interests, primarily by assisting them in developing a self-sufficient defense capability.

We will continue our armaments cooperation activities with friendly Middle East nations. Cooperation with Israel has provided the Services with valuable battlefield information from the 1982 Israeli conflict in Lebanon. This exchange of information, as well as efforts to co-develop new systems, is expected to continue. Elsewhere in the Middle East, we have signed a defense industrial cooperation agreement with Pakistan that constitutes a significant addition to our security assistance to that country.

Our cooperation with the Republic of Korea constitutes an important element in securing that nation's independence and freedom. Armaments cooperation programs, most notably in tanks, communications equipment, and missiles, are helping to strengthen their defense capabilities.

We have achieved considerable progress in establishing balanced armaments cooperation with Japan with the signing of notes authorizing the transfer of Japanese military technology to the United States. We are moving rapidly to create a mutually beneficial exchange environment with Japan. The Defense Science Board (DSB) has conducted an assessment of the potential and means for enhancing industry-to-industry armaments cooperation. Concurrently, DoD conducted an intensive assessment of two critical technological areas to determine where increased U.S./Japanese cooperation in these selected areas would be in our mutual interest. The Defense Policy Advisory Committee on Trade (DPACT) has prepared an assessment of increased armaments cooperation from the perspectives of both trade and defense. These efforts are focused with DoD to ensure that our overall program of armaments cooperation is balanced and in our national interest.

In the Pacific region, progress continues in assisting the People's Republic of China to modernize in a manner that does not threaten our own national security or that of our allies and other friends throughout the region. Additional cooperative programs with Australia have been negotiated. We are increasing our cooperation with countries of Southeast Asia. We are also seeking projects of mutual interest with Indonesia and Singapore.

Cooperation with friendly countries in Latin America continues to improve commensurate with the needs and capabilities of the individual countries. A Memorandum of Understanding (MOU) on military industrial cooperation, as well as an Air Force Scientist and Engineer Exchange Program, have been concluded with Brazil. We are also assisting USCINCSOUTH to develop a regional cooperative program for the indigenous production of low technology materiel, and we are arranging for exploratory discussions with Mexico on establishing long-term cooperative programs in military technology.

Our efforts with non-NATO allies and other friendly nations continue to emphasize enhancing mutual national security interests. Toward that end, we have approved the sale of defense equipment, with appropriate safeguards concerning technology transfer, to those nations whose policies are in consonance with the United States and NATO.

6. Space Systems Operations

United States military systems in space provide vital communications links, weather information, surveillance and warning, and navigation support to forces of all Services worldwide. To ensure that space systems meet the operational wartime requirements of our forces, a unified command for space will be formed on October 1, 1985. The U.S. Space Command will provide operational command of space systems to support national security objectives by integrating space systems into the overall warfighting structure.

Our objectives in space include: implementing a strategy that provides for a launch system complementary to the space shuttle; pursuing research concepts that have a high military payoff in terms of providing a hedge against a potential breakthrough in space weapons by any adversary; achieving an antisatellite capability; and defining and developing the needed surveillance resources to support our national leadership during military operations.

During the past year, we corrected the Inertial Upper Stage (IUS) problems that almost caused the loss of the first Tracking and Data Relay Satellite (TDRS) launched in 1983. An extensive test and recertification program has given us confidence that these problems have been corrected. The recently approved National Space Strategy specified that DoD develop an alternative launch capability to complement the shuttle and guarantee access to space. The Complementary Expendable Launch Vehicle (CELV) Program will give us that capability by 1988.

Construction of the Vandenberg Shuttle Complex is on schedule. Reported welding and electrical problems were documented by the Air Force and contractors prior to their public disclosure. Corrective measures are well under way. Flight hardware compatability testing began last November to support the October 1985 launch. However, NASA's recent problems with the space shuttle's insulating tiles and development delays related to new lightweight casings for the shuttle's solid rocket boosters will delay the first launch to not earlier than late January 1986. We have also begun work on the Consolidated Space Operations Center (CSOC) to conduct DoD's planning and operations for the shuttle program and to augment existing satellite command and control capabilities as the volume of assets in space increases significantly in the late 1980s. We expect to conduct initial satellite control operations at this facility in FY 1987 and to conduct initial shuttle planning and operations during the early 1990s.

We are continuing to expand space-related T&E within DoD to ensure that we are not technologically surprised by an adversary, to advance our own capabilities in space, and to improve the survivability of future space programs.

7. Conventional Initiatives

New technologies are now available to provide our AirLand forces with radically new techniques for defeating the enemy's follow-on forces. These technologies include near-real-time airborne acquisition sensors now being fielded, as well as microprocessing components and communications equipment to bring the acquired intelligence to the executing element on the battlefield. Additionally, we have made progress in lethal submunitions, guidance systems, and delivery systems that enable us to take an enemy force under fire well beyond the range of conventional artillery and close air support. We are developing systems that will be able to locate and track moving targets deep behind enemy lines. Intelligence and fire-control information from multiple sources will be processed by automated systems and distributed to tactical commanders for targeting decisions. Targets will be attacked by aircraft and missiles delivering a variety of munitions, including terminally guided submunitions. Major programs emphasizing extended-range target acquisition and deep attack capabilities include: Joint STARS, Joint Tactical Fusion Program, and the Standoff Tactical Missile (for description see the Land Forces chapter).

8. Technology Transfer and Export Control

a. Objectives

The transfer and control of technology is inseparably related to international cooperative R&D efforts. Of particular concern to DoD are those technologies essential to the development and production of superior quality weapons systems. In fact, NATO's military strength has been, and will continue to be, based upon such technologies. In sheer quantities of military resources, the Warsaw Pact has NATO outnumbered and outgunned. We must, therefore, balance this numerical threat in large measure by relying upon qualitatively superior weapons systems to maintain our collective military strength. Toward that end, we cooperate with our NATO allies in the exchange of technology through cooperative research, development, and acquisition of weapons systems. It is our objective that the Alliance attain, through equitable burdensharing, the necessary military strength in terms of superior weapons, readiness, sustainability, and interoperability in order to achieve and maintain a credible military deterrent and thus preserve peace.

It is clear that, properly managed, the sharing of our modern weapons technology with our allies is in our own national interest, but the loss by transfer to the Soviets is cause for grave concern. Only now can we fully understand the consequences of the technology transfer that had been occurring during the latter half of the 1970s.

b. Technology "Half-Life"

Although military technology has a significant value, it also has a limited life span. While we must provide reasonable precautions against the transfer of our technology to the Soviet bloc, we must also resist the temptation to lock away new discoveries for fear of loss to our adversaries. If we do not apply new discoveries to our weapons systems in a timely manner, we may find either that the technology has become obsolete or, worse, it has found its way into Soviet weapons systems before being incorporated into allied weapons systems.

c. Initiatives and Achievements

This Administration takes a two-step approach toward the technology transfer issue. First, we promote sharing of military technology with our friends and allies. Second, we try to control the loss of that technology to the Soviet Union and other Warsaw Pact nations. As part of our effort to raise the visibility and sharpen the focus of the technology transfer security program within DoD, a number of initiatives have been undertaken.

The Militarily Critical Technologies List (MCTL) is a basic building block of our technology program. We have continued to refine and improve this list to increase its clarity and specificity, to remove outdated elements of technology and, for the first time, to provide an unclassified version. Industry has been a major contributor to the MCTL's evolution, both as members of the Technical Working Groups (TWGs) and in the review of the MCTL by the Multi-Association Policy Advisory Group (MAPAG).

The MCTL is used to prepare Coordinating Committee (COCOM) proposals and to assist DoD in reviewing technical data provisions for incorporation in the Export Administration Regulation by the Department of Commerce. The list is also used as supplementary information in the processing of export license requests for those items that are under Commodity Control List or Munitions List Control. The MCTL is used as a reference document in disclosure questions pertaining to scientific symposia, visitors from Warsaw Pact countries, and various international agreements involving exchange of technical data.

The COCOM -- comprising representatives from Japan and the NATO countries, except Iceland and Spain -- has developed a list of restricted items to control the transfer of products and technology to Warsaw Pact nations. DoD has been a major contributor to this effort, preparing well over a hundred technical proposals to be used in the COCOM list review. We have also provided a major portion of the technical support at the negotiating table. Our efforts in this area have been very successful in as much as COCOM has accepted our recommendations to provide new coverage in many areas that were previously uncontrolled and also has agreed to decontrol products of lesser strategic significance.

Among the most significant of these are several revisions to the International List (IL) in the area of computers. These have eliminated many obsolete controls while concentrating on areas that have a high military value.

In order to improve the control of critical technology identified in the MCTL, DoD has long recognized the need to rewrite the Technical Data Regulations administered by the Department of Commerce. While the regulations control direct technology transfers to potential adversaries, there is considerable potential for diversion through third countries. While existing regulations are clearly inadequate to protect our critical technology, we recognize that more stringent controls would impose an additional burden on U.S. exporters. We have continued to work closely with the Department of Commerce to tighten certain technical data transfers to all destinations, while reducing controls on products. When implemented, these initiatives will lead to tighter controls in critical technology exports to all destinations but decrease controls in the export of noncritical technology.

In addition to interacting with industry on specific export cases, we are also working to improve industry's understanding of critical technology issues. In this regard, the Defense Policy Advisory Committee on Trade (DPACT), the Defense Science Board (DSB), the American Defense Preparedness Association (ADPA), and the DoD University Forum provide useful forums for discussing transfer issues.

d. Conclusion

The DoD export control and technology transfer program has enhanced our operating policies and procedures so that export license applications are now being processed more consistently and expeditiously. While we are aware of the rapidly increasing worldwide importance of trade in technology, we are also keenly aware of the crucial need to maintain our technological lead. By maintaining that lead, we can offset the sigificantly superior numbers of weapons and troops available to our potential adversaries.

9. Deterrence of Chemical Warfare

a. Introduction

The Soviet Union maintains a massive chemical and expanding biological and toxin capability and has repeatedly used or sponsored the use of such weapons in violation of their treaty obligations. In addition, chemical weapons have proliferated throughout the world with potentially grave consequences for us and our allies. In spite of major improvements in chemical protection, the U.S. and allied capability to counter the expanding threat continues to decline due to our failure to reestablish a credible chemical retaliatory capability.

Although we no longer believe the Soviets intend to use chemical weapons on a massive scale, the selective use against special targets cannot be ruled out. Responding to this threat of chemical warfare has been a particularly difficult issue for our nation to face. The question we must address is how to ensure these weapons are not used against either civilians or the men and women of our Armed Forces. The Congress must face this issue and resolve it.

In accordance with our international treaty obligations, the United States does not and will not possess biological or toxin weapons. Moreover, our goal is to eliminate the threat of chemical warfare by obtaining a global, comprehensive, verifiable ban on the development, production, stockpiling, and transfer of chemical weapons. Negotiations to achieve this goal are currently under way at the Conference on Disarmament in Geneva. In 1984, at the Geneva Conference, the Vice President presented a draft proposal for the total prohibition of chemical weapons. The treaty is a bold U.S. initiative forging new ground in the critical areas of verification and compliance. In essence, to establish confidence in the treaty, the United States is offering to open its military, government-owned, and government-controlled facilities to unrestricted inspection in the event of a suspected violation, and we are asking other nations to do the same. We realize that such a verification measure is unprecedented, but the risks of the status quo or of an unverifiable treaty are so severe that they far outweigh the risks of allowing international inspection teams into our sensitive facilities. A ban remains elusive, however, despite many years of effort and more than fifteen years of unilateral U.S. restraint in chemical weapons production. The continuing decline in U.S. chemical retaliatory capability does not give the Soviets any incentive to negotiate.

Chemical weapons could exert their greatest impact on the course of battle when there is an imbalance in chemical capabilities between the two sides. The Soviet Union possesses a considerable advantage in chemical warfare capabilities, which could be a decisive factor in conflict.[1] Working or fighting in protective gear -- the mask, hood, special suit, gloves, and boots -- can be so debilitating that the protective measures themselves can be damaging to military operations. The problems faced by an individual -- heat, stress, restricted movement, impaired vision, and limited communications -- are compounded when people must work or fight as a unit. Tasks that are demanding under normal battlefield circumstances -- repairing runways and other facilities, rescuing and treating casualties, flying aircraft, and defending against armored attacks -- become much more difficult in a chemically contaminated environment. We estimate the overall loss of combat capability to be 30-60 percent.

---

[1] For more information on the Soviet threat, see Soviet Military Power, 1984 and Continuing Development of Chemical Weapons Capabilities in the USSR, October 1983.

The United States and its allies are investing billions of dollars in conventional forces to deter or, if necessary, to turn back a Soviet conventional attack. The lack of an effective retaliatory chemical capability, however, could provide the Soviets with a powerful incentive to use their chemical weapons to negate U.S. conventional force improvements. Whether they would do so under the threat of nuclear retaliation is open to conjecture, but, if we do not restore a credible chemical retaliatory capability, nuclear weapons might be our only option to deny the Soviets victory. We must decrease rather than increase our reliance on nuclear weapons to deter conventional conflicts.

The recent proliferation of chemical weapons, as shown by the Iran-Iraq war, has added a new dimension to the chemical threat. Today, more than 15 nations are believed to possess chemical weapons, and many more are capable of acquiring them. Chemical warfare poses a threat in many areas of the world where the United States has vital interests and where the threat of nuclear retaliation to chemical attack is not credible.

Until we can achieve an effective chemical weapons ban, we must have the capability to deter others from using chemical weapons against us or our allies. The United States will never initiate chemical warfare but, since World War I, has possessed both protective equipment and a stockpile of chemical weapons as a deterrent; indeed, the existence of such stocks of weapons is generally credited with having deterred the use of chemical weapons in World War II. However, our current aging stocks of chemical weapons, produced in the 1950s and 1960s, no longer constitute an adequate deterrent. Our field commanders have identified their minimum chemical munitions requirements, and the current U.S. stockpile of militarily useful munitions falls far short of the requirement in types of munitions and the quantity of agent fill. We do not have the number of artillery projectiles of the appropriate caliber and chemical agent required for the modern battlefield. Worse, we lack any effective capability to deliver persistent agents against those critical targets beyond artillery range. We must modernize to reestablish and maintain an adequate chemical deterrent. Our proposed program is designed to do this and no more.

For an effective deterrent, we need not match the size and scope of either the Soviet chemical weapons or protection capabilities. In fact, our proposed modernization program would result in a stockpile significantly smaller, but safer and more effective, than the one we now possess. We do, however, require an adequate chemical defense and a modest, but effective, chemical retaliatory capability. Most of the funds allocated to this program are devoted to improving protective capabilities -- suits, detectors, shelters, decontamination equipment, and antidotes. However, all foreseeable effective chemical protective equipment and procedures will continue to hamper individual and unit effectiveness severely. Therefore, improving our protective posture will not, by itself, provide an adequate deterrent, since the Soviets and others would enjoy a significant and perhaps decisive military advantage if they could force us to operate in protective equipment, while their troops remained relatively unencumbered. To possess an effective deterrent, we must reestablish a retaliatory capability sufficient to assure that the Soviets, too, would have to operate in a protective posture.

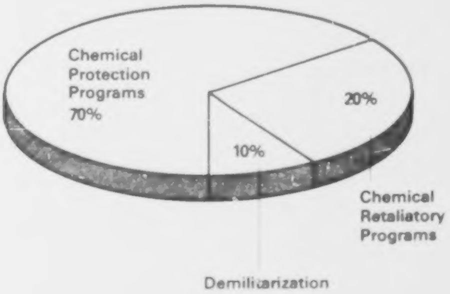
In addition to pursuing a chemical arms ban and reestablishing a chemical deterrent, our program includes plans for the disposal of obsolete and unusable stocks of chemical agents and munitions.

b. FY 1986-90 Programs

(1) Chemical Warfare Protection

Our chemical protective program, comprising more than 70 percent of the FY 1986-90 chemical funding, Chart III.I.6, will continue to improve the capability of our forces to operate in a chemical warfare environment and reduce the degradation in effectiveness imposed by chemical protective equipment and procedures. Our major emphasis will be to develop and field improved protective equipment and supplies, including medical items. Training, exercises, and doctrine will remain key components of the chemical protective program.

Chart III.I.6
FY 1986-90 Funding for Chemical Programs

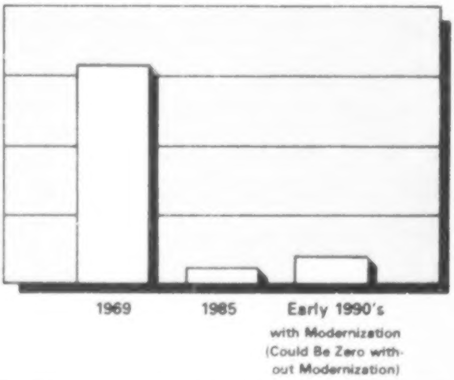


Considerable progress has been made in chemical protection. We have increased the instructional time devoted to chemical defense, the number of trained specialists, the amount of time spent by operational units in protective gear, and the frequency and extent of chemical operations in major field exercises. In addition, we have fielded stocks of protective equipment for our forces. Over the next five years, we will be acquiring collective protective equipment for fixed installations and mobile units, more and better decontamination equipment, significantly improved detection and warning devices, and improved individual protective equipment. We are also acquiring medical systems to prevent and treat chemical and conventional casualties in a combat environment, which might include chemical contamination.

(2) Chemical Retaliatory Capability

A chemical retaliatory capability, along with a strong protective posture, would deny the Soviets any incentive to use their chemical weapons against us or our allies. Toward that end, our field commanders require adequate quantities of nonpersistent artillery projectiles and deep attack persistent agent weapons to establish a credible deterrent. However, our current stockpile of useful munitions contains no deep attack persistent agent capability, and most of the short-range artillery shells contain inappropriate persistent agent. Although the stockpile may have been adequate in 1969 when the United States last produced chemical weapons, we have now reached a point at which the U.S. stockpile of militarily useful chemical weapons contains only about half the agent required to support our field commanders' needs. Additionally, the stockpile lacks the capability to engage targets beyond artillery range.

Chart III.I.7
Chemical Weapons Stockpiles



Our proposed program will continue maintenance efforts to preserve the serviceability of the militarily useful chemical munitions stockpile. However, maintenance cannot halt or reverse internal deterioration of the chemical agent fill, nor can it provide an effective deep target capability in the absence of appropriate weapons, nor ease the logistical burdens associated with the current, highly toxic chemical munitions. Therefore, modernization of the stockpile is urgently required; it represents about 20 percent of our FY 1986-90 program.

(3) Demilitarization

About 10 percent of our chemical program funds will be used to dispose of chemical munitions. Most of these funds will be used for the disposal of those chemical munitions that could pose safety problems. At the same time, we are proceeding with technology development and planning for the disposal of other obsolete or unusable munitions and, if negotiations are successful, to dispose of the entire chemical stockpile. Construction of a facility to dispose of the highly flammable agent BZ at Pine Bluff Arsenal, Arkansas, was approved for FY 1984, and a facility at Johnston Island to dispose of chemical rockets was approved for FY 1985. The planning and approval process for facilities to dispose of obsolete chemical rockets stored at other locations is under way.

c. Conclusion

Chemical weapons pose a worldwide threat, and improving our chemical deterrent capability is vital if we are to eliminate adversarial incentive to use chemical weapons against the men and women who serve in our Armed Forces. Modernization would provide the necessary inducement for these nations to join in a comprehensive, verifiable chemical weapons ban. Both the protective and retaliatory components of the proposed program are essential. The current imbalance invites the Soviets to use chemical weapons and could give them a decisive edge in conventional conflict. Our comparative weakness in this area also invites other nations to acquire chemical weapons as a cheap alternative to increasing conventional military power. Failure to modernize both program components will undermine international efforts to achieve what we and most of the world desire -- a total, verifiable ban on the development, production, and stockpiling of chemical weapons. The Congress must face its responsibilities squarely and authorize the modernization program we have requested.

10. Special Operations Forces

Revitalizing our Special Operations Forces (SOF) remains a high priority of this Administration. Over the last four years, we have made significant progress toward achieving that goal. The high priority we have assigned to SOF revitalization reflects our recognition that low-level conflict, for which SOF are uniquely suited, poses the threat we are most likely to encounter through the end of this century. We must have strong SOF if we are to meet this and other challenges across the broad spectrum of conflict.

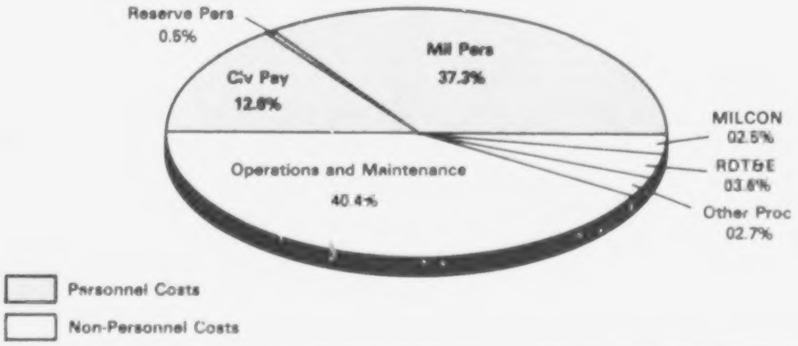
With this in mind, we have activated a new Special Forces (SF) group and a new SEAL team, which will expand our SOF structure when fully manned in FY 1988. To reach projected force level requirements, activation of another SF group and SEAL team is scheduled by FY 1990. By fielding 21 new MC-130 Combat Talons by FY 1992, we are addressing the shortage of long-range SOF aviation capabilities. New naval special warfare craft are programmed to modernize and expand the naval special warfare capability. Readiness is being improved with better training and modern equipment, and we are revising and updating doctrine and strategy for the employment of SOF. We have also undertaken a number of management initiatives to ensure that the revitalization process proceeds in an orderly manner and that we develop a truly effective joint force. These include improvements in command and control mechanisms, creation of the Joint Special Operations Agency within the Organization of the Joint Chiefs of Staff, and enhancements to Service, Commander in Chief, and DoD staffs. Major exercises now contain SOF participation to raise staff expertise and operational planning for integrated SOF operations.

When completed, the SOF revitalization program will provide us a force fully capable of supporting U.S. national security interests worldwide.

11. Military Health Care

Chart III.I.8

DoD Medical Appropriations - FY 1986



a. Introduction

The military health care system is dedicated to two purposes: providing medical support to U.S. combat forces during war, and providing quality health benefits to active duty and retired members of the Armed Forces, their dependents, and survivors. To accomplish this, the FY 1986 budget request for military medical programs is nearly $10 billion. This includes approximately $3.2 billion for the Army, $2.5 billion for the Navy, and $2.6 billion for the Air Force. The CHAMPUS budget is $1.5 billion. About half of the total health budget is for health care costs, and over 40 percent is for medical operations and maintenance. The remainder is for military hospital and clinic construction, medical research and development, and procurement of equipment and supplies.

b. Medical Readiness

Being "medically ready" means the ability to treat casualties and return them to duty as soon as possible; to provide life-saving care, including surgery, to U.S. casualties in the event of war or terrorist attack, within the first few hours of injury; and to evacuate casualties requiring more definitive medical care. Modern, up-to-date medical equipment and supplies that can be deployed with our troops, or that can be stored throughout the world so that they are readily available to our troops wherever they might be stationed or engaged are essential to medical readiness. Also needed are specially trained medical forces, a comprehensive medical evacuation system, and agreements with other government and civilian hospitals -- both at home and abroad -- to take care of U.S. casualties in an emergency, if needed.

From a medical standpoint, our go-to-war capability today and for the future has improved. This year, the Defense Resources Board (DRB) directed the accelerated procurement of deployable medical systems which will, over the next several years, dramatically increase our ability to provide medical support in war. Moreover, we have improved the efficiency of these systems by requiring the procurement of standardized medical units across all three Services.

Another major initiative in medical readiness is our continuing progress in deploying two hospital ships. These San Clemente-class tankers will be converted into floating general hospitals with 1,000 beds and 12 operating rooms each. The USNS MERCY is now in a San Diego shipyard, and the USNS COMFORT is scheduled to arrive in the next few months for final conversion.

In FY 1984, an extensive review of the Department's overall medical capabilities, both in Europe and in the Pacific, was directed. These reviews, the most extensive analyses done so far, have already led to improvements in our medical command, control, and communication structures. New agreements have also been concluded with key friendly nations for emergency medical support for U.S. troops. Efforts to expand these agreements will be a high priority for improving medical readiness in the year ahead.

The success of the Civilian-Military Contingency Hospital System continues with over 61,000 beds from over 770 civilian hospitals in 45 metropolitan areas committed to DoD in the event of a mobilization. Great strides have also been made in cooperative medical planning between the Veterans' Administration (VA) and DoD for the treatment of active duty personnel in VA hospitals during wartime. This assures greater efficiency of both systems in time of war.

Another area of progress, and great need, is in the medical readiness of our reserve forces. Reserve forces are expected to provide over 60 percent of the health care personnel to meet medical support requirements in war. Special training programs designed by the Office of Health Affairs and joint efforts between Health and Reserve Affairs will place major emphasis on improving the training and recruitment of needed Reserve medical personnel in the year ahead. These efforts are already showing results. Since last year, about 1,000 additional physicians have been added to the reserve forces, bringing us within 2,000 of our overall physician goal. A critical shortage still exists in a number of specialties and among some nurse specialties. These will receive emphasis in the year ahead.

c. Management of the Health Care System

DoD is committed to providing high-quality health care to over eight million eligible beneficiaries through the direct care system and the CHAMPUS program. Significant progress has been made in the past four years, and, in the year ahead, we will continue to provide high-quality health care easily accessible to our beneficiaries. We will not retreat from our commitment to continue efforts to control costs within our medical system.

DoD is taking advantage of every opportunity to keep medical costs down. The Services have already made progress in avoiding additional costs under CHAMPUS by increasing workloads in military treatment facilities. This year, we have also been working to limit the costs of CHAMPUS by incorporating the prospective payment system now in use under Medicare into the CHAMPUS program. Several projects are being planned to test the feasibility of alternative financing mechanisms -- Health Maintenance Organizations (HMOs) and Preferred Providers Organizations (PPOs) -- to the military health care system. One major step forward this year will be to test the feasibility of creating an even more efficient management system through enrollment of our beneficiaries in programs similar to HMOs operated by the military treatment facility commanders.

Finally, we are developing a legislative proposal to bring about cost savings by allowing our military treatment facilities to seek reimbursement from private insurers when a beneficiary is covered by another health insurance plan.

d. Quality Assurance

In terms of assuring quality health care, DoD is currently putting in place reporting and monitoring mechanisms to safeguard against medical misconduct or malpractice. DoD directives have been issued in a number of critical areas, including supervision of non-physician health care providers; review of provider credentials; and reporting of misconduct, morbidity, and mortality. DoD is now in the forefront of national efforts to improve confidence in the quality of the health care system.

A recent audit of six military facilities by DoD's Inspector General (IG) revealed a number of cases in which DoD directives and hospital accreditation standards were not being followed. In response, we are taking steps to improve compliance with these regulations. The same IG report also pointed out some apparent deficiencies in emergency room supervision and documentation. To correct this, DoD sponsored a national conference on emergency medical care to determine how to improve emergency room operations in military hospitals.

A DoD directive is now being developed to require licensing of all military health care providers in a number of health professions, and we are developing a legislative proposal to guarantee confidentiality to those who identify and report medical misconduct.

e. Alcohol and Drug Abuse Control

In the last four years, we have seen an encouraging and sustained downturn in drug abuse among our active duty personnel. Much of this success can be attributed to the Services' aggressive use of urinalysis to identify drug abuse. We now have a drug screening and confirmation system in place, which the scientific community agrees is valid and credible. This program will continue to receive strong support from DoD in the future, as it is a critical component not only of military readiness, but also for the personal health and welfare of our military personnel.

Our goal is to reduce drug abuse by military personnel to zero, and we have made a commitment to achieve that goal. We must also take further steps to curb alcohol abuse. Alcohol-related accidents are still the greatest cause of death among active duty military personnel. Our efforts to improve identification and treatment of alcohol abuse and alcoholism in all ranks of military and civilian personnel will be intensified in FY 1985.

In this vein, we have recently launched a new health promotion and preventive medicine effort based on scientific evidence of the health hazards of smoking, overeating, and excessive use of alcohol. All of the Services have implemented programs in these areas. We will work to identify the most effective of these programs and continue to develop and refine strategies that encourage servicemembers to adopt healthful living habits.

f. Fraud and Abuse

Unfortunately, fraud and abuse have been a problem in the health care system. To eliminate the fraudulent use of military health care facilities by those who are not eligible for this service, DoD initiated the Defense Enrollment Eligibility System (DEERS). All CHAMPUS claims are now checked with the DEERS system before payment is made, and all individuals seeking routine medical care at military treatment facilities have to be enrolled in DEERS. By preventing the fraudulent use of the military health care system, our efforts have already saved millions of taxpayer dollars, enabling more efficient use of our health care resources for those eligibile to receive care.

g. Conclusion

In the past year, we have seen improvements in several critical dimensions of medical readiness and our peacetime health care system. However, there is much that remains to be done. Our goal is to assure our ability to provide medical support in the event of war and, at the same time, to provide a high level of health care to our active duty, retired, and dependent personnel. In the past, this was viewed as an impossible task. Improving medical readiness, it was said, could only be done by ignoring the peacetime system. And, in order to maintain the peacetime system, readiness had to suffer. We reject this premise and feel the accomplishments of the past few years in both peacetime and wartime capabilities bear us out. We can strike a better balance without diminishing the level of care provided to our military families.

Appendix A

Budget Tables

Table 1

Department of Defense — B/A by Appropriation (Dollars in Millions)

	FY 1976	FY 1980	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986
Current Dollars							
Military Personnel	25,430	31,014	42,875	45,688	64,866[a]	68,901[a]	73,425[a]
Retired Pay	7,326	11,965	14,986	16,155			
Operation & Maintenance	28,731	46,365	62,466	66,540	70,950	78,219	82,450
Procurement	20,991	35,283	64,462	80,355	86,161	96,807	106,813
Research, Development, Test & Evaluation	9,451	13,561	20,060	22,798	26,867	31,464	39,280
Special Foreign Currency Program	3	7	3	4	3	9	2
Military Construction	2,360	2,293	4,916	4,512	4,510	5,517	7,057
Family Housing & Homeowners Assistance Program	1,229	1,526	2,203	2,712	2,669	2,894	3,283
Revolving & Management Funds	135	1,336	2,494	1,075	2,774	1,554	1,860
Trust Funds, Receipts, & Deductions	−146	−727	−714	−365	−650	−636	−659
Proposed Legislation							189
Total · Direct Program (B/A)	**95,508**	**142,621**	**213,751**	**239,474**	**258,150**	**284,730**	**313,700**
Constant FY 1986 Dollars							
Military Personnel	50,727	48,045	50,567	51,803	70,701[a]	72,519[a]	73,425[a]
Retired Pay	13,645	16,127	17,044	17,368			
Operation & Maintenance	53,005	57,962	68,595	70,927	74,554	79,513	82,450
Procurement	44,402	50,643	79,061	93,211	95,070	101,611	106,813
Research, Development, Test & Evaluation	17,409	18,203	23,356	25,567	29,056	32,717	39,280
Special Foreign Currency Program	5	9	4	4	3	9	2
Military Construction	4,326	2,969	5,756	5,076	4,872	5,724	7,057
Family Housing & Homeowners Assistance Program	2,283	2,067	2,489	3,023	2,879	3,010	3,283
Revolving & Management Funds	261	1,876	2,945	1,234	3,045	1,649	1,860
Trust Funds, Receipts, & Deductions	−272	−979	−807	−397	−680	−641	−659
Proposed Legislation							189
Total · Direct Program (B/A)	**185,791**	**196,922**	**249,009**	**267,817**	**279,501**	**296,111**	**313,700**

(Note: Totals may not add due to rounding)

[a] Includes Retired Pay Accrual

Table 2

Department of Defense — B/A by Component
(Dollars in Millions)

	FY 1976	FY 1980	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986
Current Dollars							
Department of the Army	23,644	34,380	52,254	57,529	68,644[a]	74,366[a]	81,696[a]
Department of the Navy	31,302	47,225	69,569	81,854	87,365[a]	96,461[a]	104,813[a]
Department of the Air Force	28,444	41,720	64,821	74,074	90,851[a]	99,912[a]	110,099[a]
Defense Agencies/OSD/JCS	3,486	5,643	9,222	9,256	10,746	13,022	16,551
Defense-wide	8,632	13,653	17,886	16,761	524	969	542
Total - Direct Program (B/A)	**95,508**	**142,621**	**213,751**	**239,474**	**258,130**	**284,730**	**313,700**
Constant FY 1986 Dollars							
Department of the Army	45,250	48,370	61,195	64,632	74,314[a]	77,285[a]	81,696[a]
Department of the Navy	61,557	65,002	81,450	92,077	94,651[a]	100,320[a]	104,813[a]
Department of the Air Force	56,505	57,642	75,307	82,789	98,462[a]	104,098[a]	110,099[a]
Defense Agencies/OSD/JCS	6,400	7,488	10,649	10,252	11,497	13,380	16,551
Defense-wide	16,079	18,421	20,408	18,069	576	1,028	542
Total - Direct Program (B/A)	**185,791**	**196,922**	**249,009**	**267,817**	**279,501**	**296,111**	**313,700**

(Note: Totals may not add due to rounding.)

---

[a] Includes Retired Pay Accrual.

Table 3
Federal Budget Trends

Fiscal Year	Federal Outlays as % of GNP	DoD Outlays as a % of Federal Outlays	DoD Outlays as % of GNP	Non-DoD Outlays as % of Federal Outlays	Non-DoD Outlays as % of GNP	DoD Outlays as % of Net Public Spending[1]
1950	16.1	27.4	4.4	72.6	11.7	18.5
1955	18.0	51.3	9.2	48.7	8.8	35.5
1960	18.5	45.0	8.3	55.0	10.2	30.3
1965	18.0	38.7	7.0	61.3	11.0	25.2
1970	20.2	39.4	8.0	60.6	12.2	25.4
1971	20.4	35.4	7.2	64.6	13.2	22.4
1972	20.4	32.6	6.7	67.4	13.8	20.7
1973	19.6	29.8	5.8	70.2	13.8	19.0
1974	19.5	28.8	5.6	71.2	13.9	18.3
1975	22.5	25.5	5.7	74.5	16.7	16.5
1976	22.7	23.6	5.4	76.4	17.4	15.4
1977	22.0	23.4	5.1	76.6	16.8	15.5
1978	21.9	22.5	4.9	77.5	17.0	15.2
1979	21.4	22.8	4.9	77.2	16.5	15.4
1980	23.0	22.5	5.2	77.5	17.8	15.3
1981	23.5	23.0	5.4	77.0	18.1	15.8
1982	24.5	24.5	6.0	75.5	18.5	16.7
1983	25.1	25.4	6.4	74.6	18.7	17.4
1964	23.8	25.9	6.2	74.1	17.6	17.6
1985	24.8	25.7	6.4	74.3	18.4	17.5

---

[1] Federal, state, and local net spending excluding government enterprises (such as the postal service and public utilities) except for any support these activities receive from tax funds.

Table 4
Defense Shares of Economic Aggregates

Fiscal Year	DoD as a Percentage of Public Employment		DoD as a Percentage of National Labor Force		National Income Accounts Percentage of Total Purchase		
	Federal	Federal State & Local	Direct Hire (DoD)	Including Industry	National Defense[a]	Total Federal	State & Local
1965	71.3	29.3	5.0	7.8	7.3	9.8	10.3
1966	73.0	30.6	5.6	9.0	7.5	10.0	10.4
1967	74.1	31.5	6.0	10.0	8.6	11.1	10.9
1968	74.0	31.3	6.1	10.0	9.0	11.4	11.4
1969	73.2	30.1	5.9	9.4	8.4	10.8	11.7
1970	72.3	27.7	5.3	8.1	7.8	10.0	12.1
1971	68.3	24.4	4.6	7.0	7.0	9.2	12.6
1972	66.0	21.9	4.0	6.2	6.4	8.9	12.8
1973	65.0	20.7	3.7	5.8	5.8	8.1	12.8
1974	63.8	19.7	3.5	5.5	5.3	7.6	13.0
1975	62.9	18.7	3.4	5.3	5.4	8.0	13.8
1976	62.6	18.1	3.3	5.0	5.2	7.6	13.9
1977	62.5	17.6	3.2	5.0	4.9	7.5	13.1
1978	61.9	17.3	3.1	4.8	4.7	7.2	13.0
1979	61.1	16.8	2.9	4.8	4.6	7.0	12.7
1980	61.3	16.7	2.8	4.7	4.9	7.4	12.9
1981	62.4	17.0	2.8	4.8	5.1	7.6	12.5
1982	63.3	17.5	2.8	4.9	5.7	8.2	12.6
1983	63.6	17.9	2.9	5.2	6.1	8.5	12.7
1984	63.9	17.9	2.8	5.5	6.0	7.9	12.3
1985	64.3	18.0	2.7	5.6	6.2	8.2	12.5

---

[a] Includes Department of Defense — military, atomic energy defense activities, and other defense-related activities, such as emergency management and maintenance of strategic stockpiles and the Selective Service System.

Appendix B

Manpower Tables

Table 1
Department of Defense General and Flag Officer Strengths

Actual	General and Flag Officer Strengths	General and Flag Officers Per 10,000 Total Military
1961	1,254	5.0
1962	1,303	4.6
1963	1,292	4.8
1964	1,294	4.8
1965	1,287	4.8
1966	1,320	4.3
1967	1,334	4.0
1968	1,362	3.8
1969	1,336	3.9
1970	1,339	4.4
1971	1,330	4.9
1972	1,324	5.7
1973	1,291	5.7
1974	1,249	5.8
1975	1,199	5.6
1976	1,184	5.7
19TQ	1,174	5.7
1977	1,169	5.6
1978	1,119	5.4
1979	1,119	5.5
1980	1,118	5.4
1981	1,073	5.2
1982	1,073	5.1
1983	1,073	5.1
1984	1,073	5.0
Programmed		
1985	1,073	5.0
1986	1,073	4.9

Table 2
Department of Defense Officer Strength — In Thousands

Actual	Officer Strengths[a]	Enlisted to Officer Ratio
1961	316	6.9
1962	343	7.2
1963	334	7.1
1964	337	7.0
1965	339	6.8
1966	349	7.9
1967	384	7.8
1968	416	7.5
1969	419	7.3
1970	402	6.3
1971	371	6.3
1972	336	5.9
1973	321	6.0
1974	302	6.2
1975	292	6.3
1976	281	6.4
19TQ	279	6.5
1977	275	6.5
1978	273	6.5
1979	273	6.4
1980	276	6.3
1981	283	6.3
1982	290	6.2
1983	299	6.1
1984	303	6.0
Programmed		
1985	308	5.9
1986	312	5.9

[a] Includes all active forces officers on extended active duty.

Table 3

Military and Civilian Personnel Strength[a]

(End Fiscal Years — In Thousands)

	Actuals								Programmed	
	FY 1968	FY 1972	FY 1976	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986
Active Military										
Army	1,570	811	779	777	781	780	780	780	781	781
Navy[b]	766	588	525	517	529	542	558	565	571	586
Marine Corps	307	198	192	188	191	192	194	196	198	200
Air Force	905	726	585	558	570	583	592	597	602	612
Total	*3,547*	*2,322*	*2,081*	*2,040*	*2,071*	*2,108*	*2,123*	*2,138*	*2,152*	*2,178*
Reserve Components (Selected Reserve)										
Army National Guard	389	388	362	367	389	408	417	434	438	450
Army Reserve	244	235	195	206	225	257	266	275	286	301
Naval Reserve[b]	124	124	97	97	98	105	109	121	129	142
Marine Corps Reserve	47	41	30	35	37	40	43	41	42	43
Air National Guard	75	89	91	96	98	101	102	105	108	111
Air Force Reserve	43	48	48	59	62	64	67	70	75	77
Total	*922*	*925*	*823*	*861*	*909*	*974*	*1,005*	*1,096*	*1,077*	*1,124*
Direct Hire Civilian										
Army[c]	462	367	329	312	318	322	332	344	342*	346*
Navy	419	342	311	298	310	308	328	332	328*	330*
Air Force[c]	331	280	248	231	233	233	238	240	243*	252*
Defense Agencies	75	61	72	75	79	84	82	85	89*	91*
Total	*1,287*	*1,050*	*960*	*916*	*940*	*947*	*980*	*1,000*	*1,002**	*1,020**

---

[a] Numbers may not add to totals due to rounding.

[b] Navy Training and Administration of Reserves (TARs) personnel are counted in the Selected Reserve from FY 1980 on. Prior to FY 1980, TAR pesonnel are included in the Active Military.

[c] These totals include Army and Air National Guard technicians, who were converted from State to Federal employees in FY' 1979. The FY 1968 total has been adjusted to include approximately 3,900 technicians.

*Estimated.

Table 4

U.S. Military Personnel in Foreign Areas[a]

(End-Year — In Thousands)

	FY 1968	FY 1972	FY 1976	FY 1979	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984
Germany	225	210	213	239	244	248	256	254	254
Other Europe	66	62	61	61	66	64	67	70	73
Europe, Afloat	23	26	41	25	22	25	33	18	25
South Korea	67	41	39	30	39	38	39	39	41
Japan	79	64	45	46	46	46	51	49	46
Other Pacific	37	25	27	15	15	15	15	15	16
Pacific Afloat (Including Southeast Asia)	94	51	24	22	15	25	33	34	18
Miscellaneous Foreign	27	22	8	11	42	39	34	41	38
Total	*1,200*	*586*	*460*	*458*	*489*	*502*	*528*	*520*	*511*

---

[a] Numbers may not add to totals due to rounding.

Appendix C

Force Tables

Table 1

Department of Defense Strategic Forces Highlights

	FY 1976	FY 1980	FY 1984	FY 1985	FY 1986
Strategic Offense					
Land-Based ICBMs					
Titan	54	52	31	23	9
Minuteman	1,000	1,000	1,000	1,000	997
Peacekeeper	—	—	—	—	3
Strategic Bombers (PAA)[a]					
B-52D	145	75	—	—	—
B-52G/H	241	241	241	241	241
FB-111	66	60	56	56	56
B-1B	—	—	—	1	18
Fleet Ballistic Launchers (SLBMs)					
Polaris	240	80	—	—	—
Poseidon (C-3 and C-4)	416	496	496	496	496
Trident	—	—	120	144	192
Strategic Defense					
Interceptors (PAA/Squadrons)[a]					
Active	141/6	127/7	90/5	90/5	72/4
Air National Guard	262/15	165/10	162/10	198/11	198/11

---

[a] PAA - Primary Aircraft Authorized

Table 2

Department of Defense
General Purpose Forces Highlights

Land Forces	FY 1976	FY 1980	FY 1984	FY 1985	FY 1986
Army Divisions:					
Active	16	16	16	17	18
Reserve	8	8	9	9	10
Marine Corps Divisions:					
Active	3	3	3	3	3
Reserve	1	1	1	1	1
Tactical Air Forces (PAA/Squadrons)[a]					
Air Force Attack/Fighter					
Active	1608/74	1680/79	1734/77	1758/78	1786/79
Reserve	758/36	792/39	852/43	864/43	876/43
Navy Attack/Fighter					
Active	976/65	894/60	947/63	956/63	990/65
Reserve	120/10	120/10	108/9	92/9	108/9
Marine Corps Attack/Fighter					
Active	422/25	422/25	409/24	417/25	430/25
Reserve	96/8	84/7	88/8	88/8	94/8
Naval Forces					
Strategic Forces Ships	50	48	41	43	44
Battle Forces Ships	367	384	425	433	439
Support Forces Ships	63	41	45	52	54
Reserve Forces Ships	4	6	12	14	18
Total Deployable Battle Forces	**484**	**479**	**523**	**542**	**555**
Reserve Forces Ships	57	44	24	20	21
Auxiliaries and Sealife Forces[b]	14	15	32	43	45
Total Other Forces	**71**	**59**	**56**	**63**	**66**

---

[a] PAA - Primary Aircraft Authorized

[b] Does not include RRF ships

Table 3

Department of Defense Airlift and Sealift Forces Highlights

	FY 1976	FY 1980	FY 1984	FY 1985	FY 1986
Intertheater Airlift (PAA)[a]					
C-5A	70	70	70	70	70
C-5B	—	—	—	—	5
C-141	234	234	234	234	234
KC-10A	—	—	25	35	46
Intratheater Airlift (PAA)[a]					
Air Force Active					
C-130	234	218	218	216	216
Air Force Reserve and National Guard					
C-130	262	264	302	302	302
C-123	64	64	—	—	—
C-7A	51	48	—	—	—
Active Navy and Marine Corps					
Tactical Support	40	45	47	38	38
Reserve Navy and Marine Corps					
Tactical Support	33	34	33	34	34
Sealift					
Ships, Active					
Tankers	12	21	21	26	26
Cargo	19	14	14	14	14
Controlled Fleet Charters:					
Tankers	14	14	12	12	12
Cargo	21	23	30	40	43
National Defense Reserve Fleet[b]	**144**	**164**	**202**	**214**	**220**

---

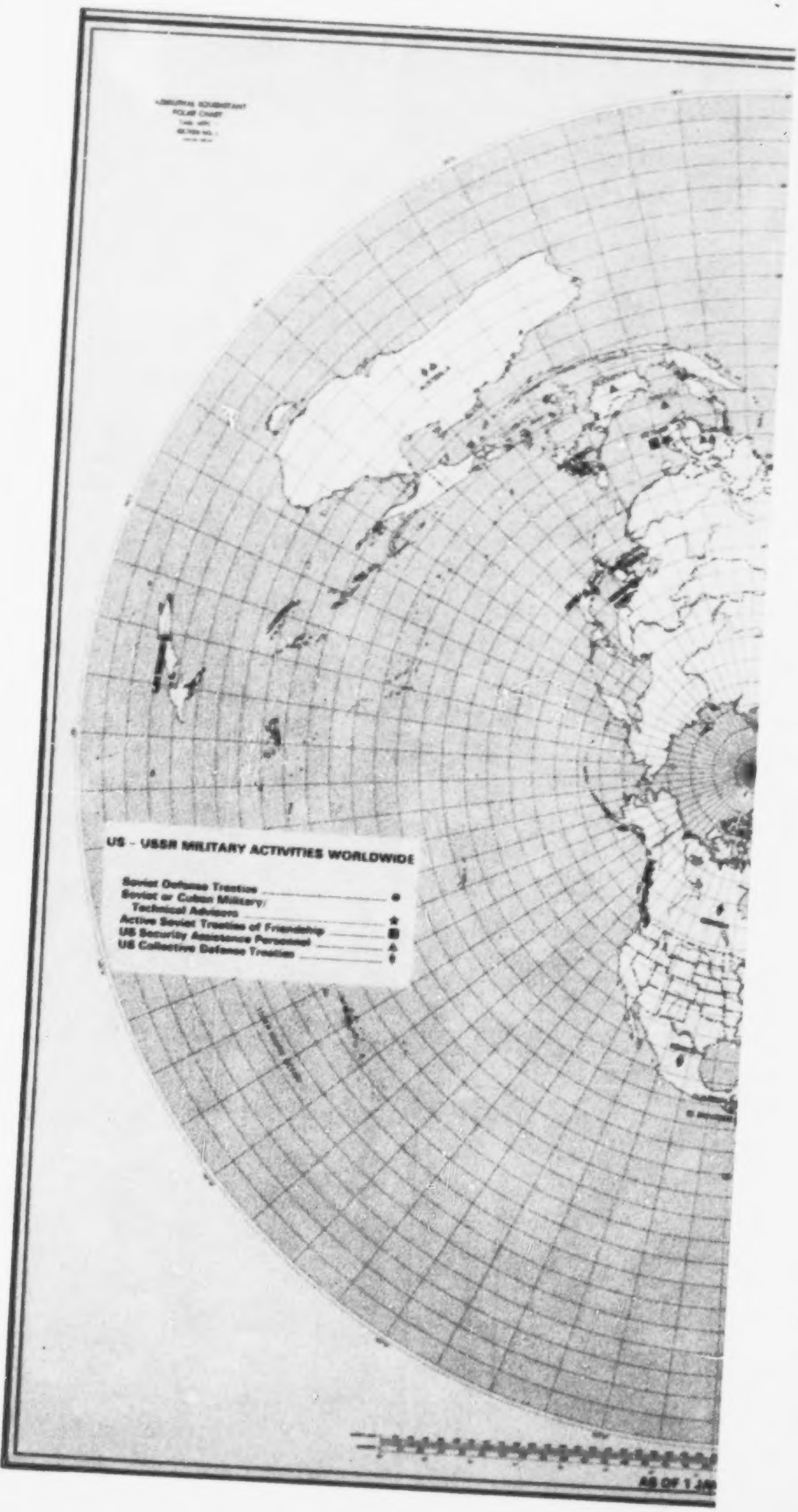
[a] PAA - Primary Aircraft Authorized

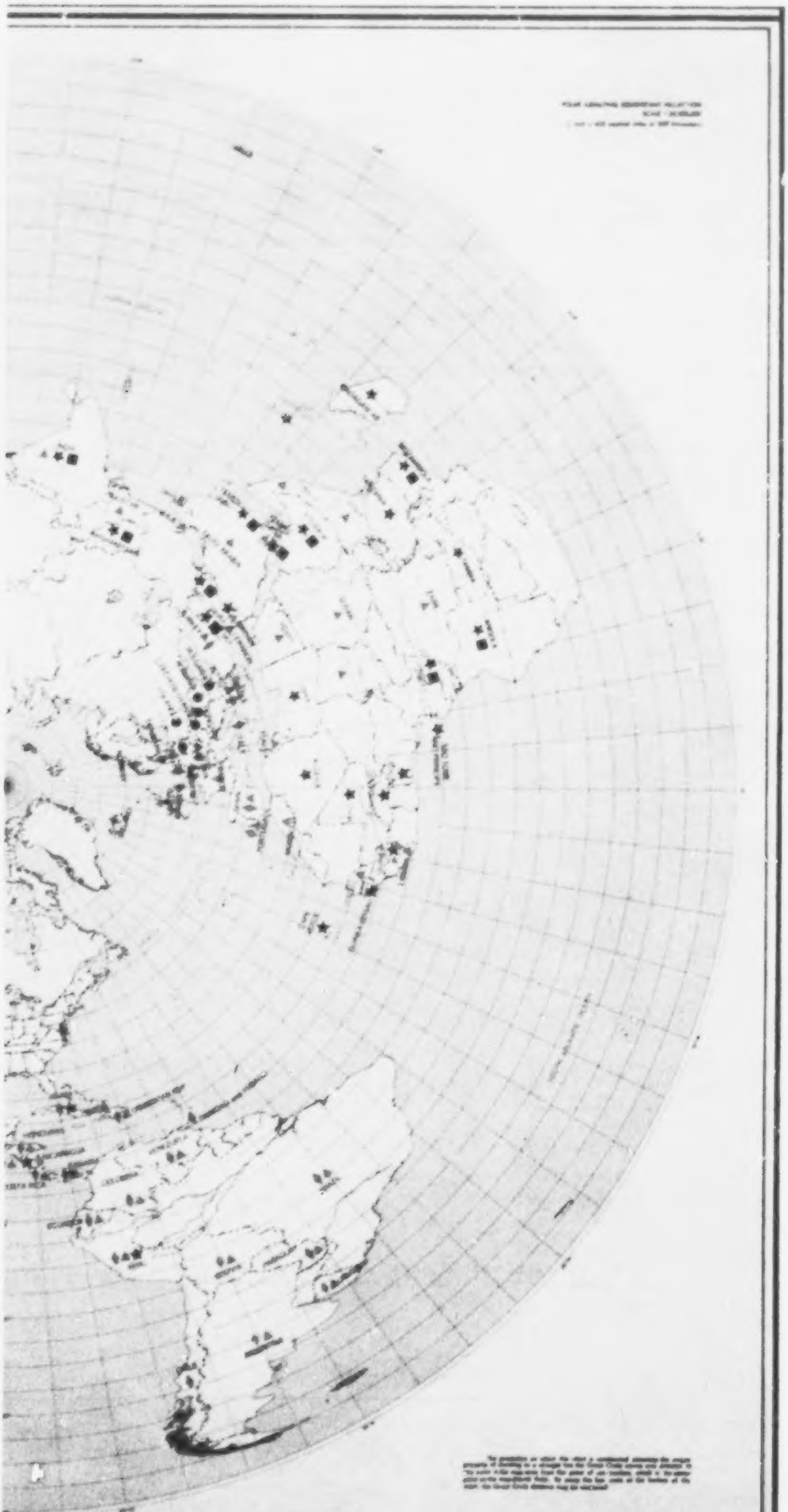
[b] Includes commercial dry cargo ships and the Ready Reserve Force

UNITED STATES MILITARY POSTURE FOR FY 1986

Prepared by:

THE ORGANIZATION OF THE JOINT CHIEFS OF STAFF


US - USSR MILITARY ACTIVITIES WORLDWIDE
Soviet Defense Treaties ●
Soviet or Cuban Military/Technical Advisors ★
Active Soviet Treaties of Friendship ■
US Security Assistance Personnel ▲
US Collective Defense Treaties ♦
AS OF 1 JA


UARY 1985
MAP I-1

PREFACE

The primary purpose of this statement on the military posture of the United States is to supplement testimony by the Chairman of the Joint Chiefs of Staff and members of the Organization of the Joint Chiefs of Staff at congressional hearings in support of the Fiscal Year 1986 Defense Budget.

Chapter I is an overview which describes the main challenges to US national security, outlines objectives and elements of US military strategy, and highlights continuing efforts to field the best possible armed forces for the protection of US national interests.

Chapter II compares US defense requirements and resource commitments with those of the Soviet Union.

Chapter III assesses the current and projected capability of the US Armed Forces to meet the Soviet nuclear threat.

Chapter IV assesses the current and projected capability of US Armed Forces, in concert with friends and allies, to meet the Soviet conventional military threat. This chapter examines types of forces and their regional applications.

Chapter V addresses other selected topics of interest.

Boundary representations are not necessarily authoritative. The United States does not recognize the incorporation of Estonia, Latvia, and Lithuania into the Soviet Union.

CHAPTER I. SECURITY CHALLENGES AND THE MILITARY POSTURE

INTRODUCTION

The basic mission of the US Armed Forces is to help preserve the United States as a free nation, with its fundamental institutions and values intact. US forces help assure the physical security of the United States and protect US interests abroad. An important purpose of US military power is prevention of war. The tasks assigned the Armed Forces require a strong military posture to provide a credible deterrent across the spectrum of conflict. During the past year, US forces have grown in capability through improvements in readiness and sustainability, and extensive modernization programs.

MILITARY POSTURE AND GLOBAL REALITIES

The United States has global interests and commitments to many nations. The security interests of the United States, its allies, and friends continue to be challenged by the sustained growth of Soviet military power, Eastern bloc and surrogate exploitation of regional conflict, and instability in many areas of the world.

The Soviets continue to modernize their strategic nuclear, theater nuclear, and conventional forces, and their capabilities for projecting military power. Together with clients and surrogates, the Soviets are attempting to weaken the ties between the United States and its allies and extend their influence in the Third World. Soviet military capabilities threaten Free World interests and US alliances, impede the peaceful resolution of Third World problems, and contribute to regional instability in ways that promote wider conflict.

US military strategy seeks to deter attacks against the United States and its allies, limit Soviet capabilities for coercion, and provide the National Command Authorities (NCA) flexibility to respond appropriately to aggression. Therefore, US forces must be capable of meeting regional requirements as well as threats of global dimension. Readiness, sustainability, and sound force dispositions are imperatives of the US military posture.

Global Considerations

US interests are best pursued within a stable, peaceful international community. Armed conflict, international terrorism, and regional instability affect the United States and its allies, and potentially have global implications. These challenges have led to complex requirements for US military forces and the need for collective approaches to security.

The Soviet Union, using military power as its principal tool, continues its efforts to influence international events. Map I-1 shows the Soviet network of activities that have facilitated the introduction of Soviet equipment and personnel — or surrogate forces — into regions of instability.

The continuing Soviet buildup of nuclear and conventional forces has global significance. Soviet military capabilities have put great pressure on US and allied defensive strategies and threatened international stability. The United States and the Soviet Union could inflict unprecedented damage on each other by the use of strategic nuclear forces. Nevertheless, the Soviets have continued to develop strategic offensive and defensive capabilities in an effort to reduce the credibility of the US deterrent, increase the options available to the Soviet leaders, and diminish the options open to the United States and its allies. The Soviets depend heavily on military capabilities to support their policies toward the North Atlantic Treaty Organization (NATO) and to maintain pressure on the Eastern bloc to ensure Warsaw Pact cohesion. In addition, the Soviet Union has broadened the scope of its military activity outside Europe, as shown by its aggression in Afghanistan, extensive maritime operations, and increasing operations from facilities in Southeast Asia.

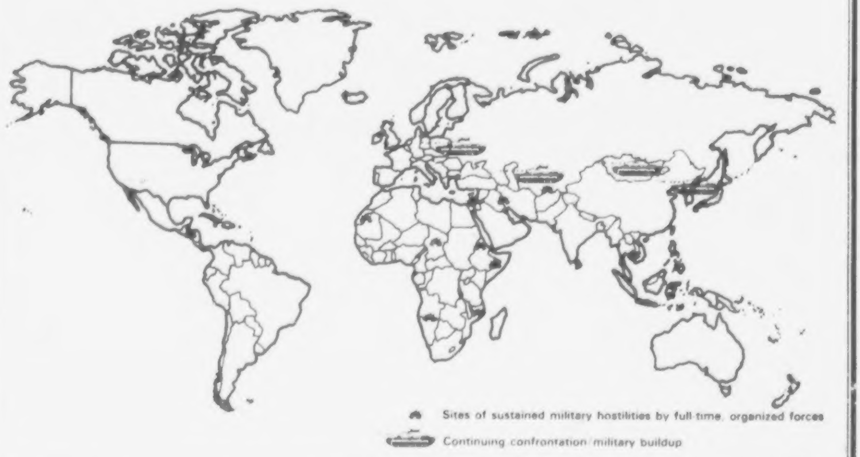
The following sections provide an overview of regional considerations that impact on the US military posture. Although the regions differ in many respects, their interrelationship requires that US security efforts in each area be evaluated to determine the potential impact on other regions.

Regional Considerations

Instability in underdeveloped areas of the world increases the difficulty of dealing constructively with development problems. Turmoil in these regions also threatens the flow of resources among nations and provides the Soviet Union opportunities to expand its influence at the expense of the Free World. Instability is most prevalent in the Central American-Caribbean region, southern Africa, Southeast Asia, and the area stretching from Libya to Afghanistan. Map I-2 identifies areas where major military conflicts occurred in 1984. Nations within these regions are confronted by social, economic, and political problems that defy easy solution and often lead to insurgency and intraregional strife. Each of these regions has resources essential to the well-being of many nations, and, in most cases, is adjacent to vital lines of communication (LOCs). Terrorism, externally supported aggression, and possible nuclear proliferation are regional concerns that represent potential threats to US security.

Intraregional conflict poses the risk of involving both neighboring nations and major powers outside the area. The United States must stand ready, with other nations, to deter regional conflicts or limit them should deterrence fail.

Military Hostilities and Confrontations


Sites of sustained military hostilities by full-time, organized forces
Continuing confrontation/military buildup

As of 1 January 1986

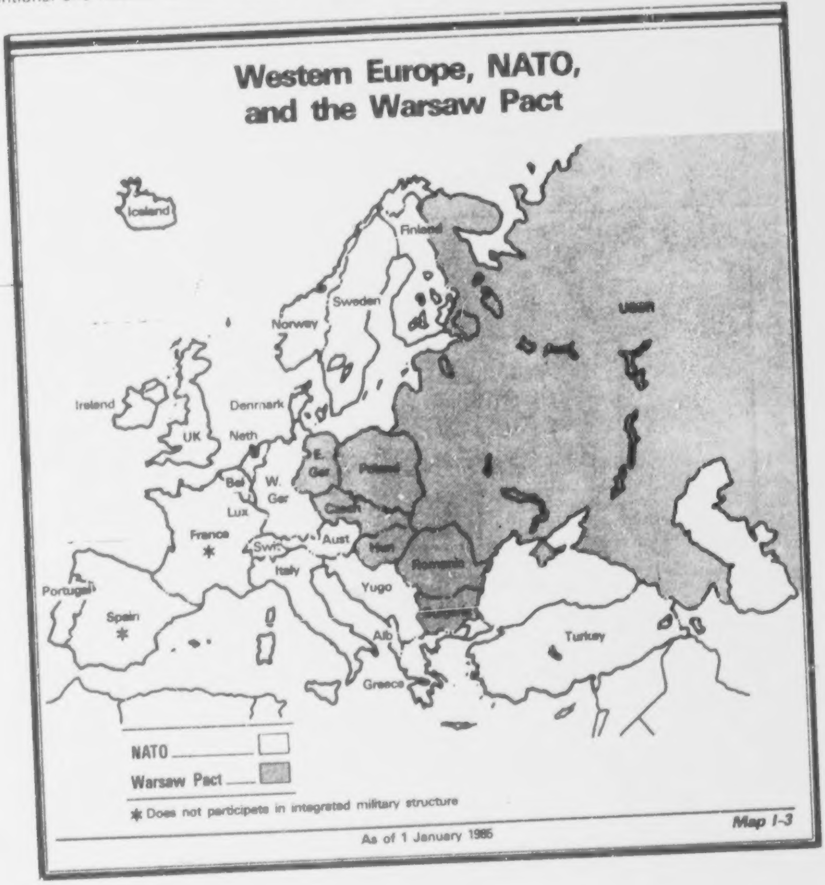
Map I-2

Western Europe, NATO, and the Warsaw Pact

The security of Western Europe and the United States are interdependent. The United States remains firmly committed to NATO (Map I-3). The United States maintains strong forward-deployed forces in Europe and the adjacent seas as evidence of its determination to deter attacks on the Alliance or restore allied territorial integrity in the event of aggression. The security of NATO depends on the ability of the United States and its allies to maintain a full range of conventional and nuclear forces. To ensure a credible conventional defense capability, the Alliance must be able to reinforce forward-deployed forces rapidly; demonstrate that its forces can be sustained; and exploit NATO's advantages in resources, technology, and cohesion. Chapter IV discusses the military balance in Europe.

Middle East and Southwest Asia

The major US security objectives in the Middle East and Southwest Asia are to deter the expansion of Soviet influence and ensure continued Western


Western Europe, NATO, and the Warsaw Pact
Iceland
Finland
Sweden
Norway
USSR
Ireland
Denmark
UK
Neth
E. Ger
Poland
Bel
W. Ger
Lux
Czech
France
Aust
Switz
Hun
Romania
Italy
Yugo
Bulgaria
Portugal
Spain
Alb
Turkey
Greece
NATO
Warsaw Pact
✱ Does not participate in integrated military structure

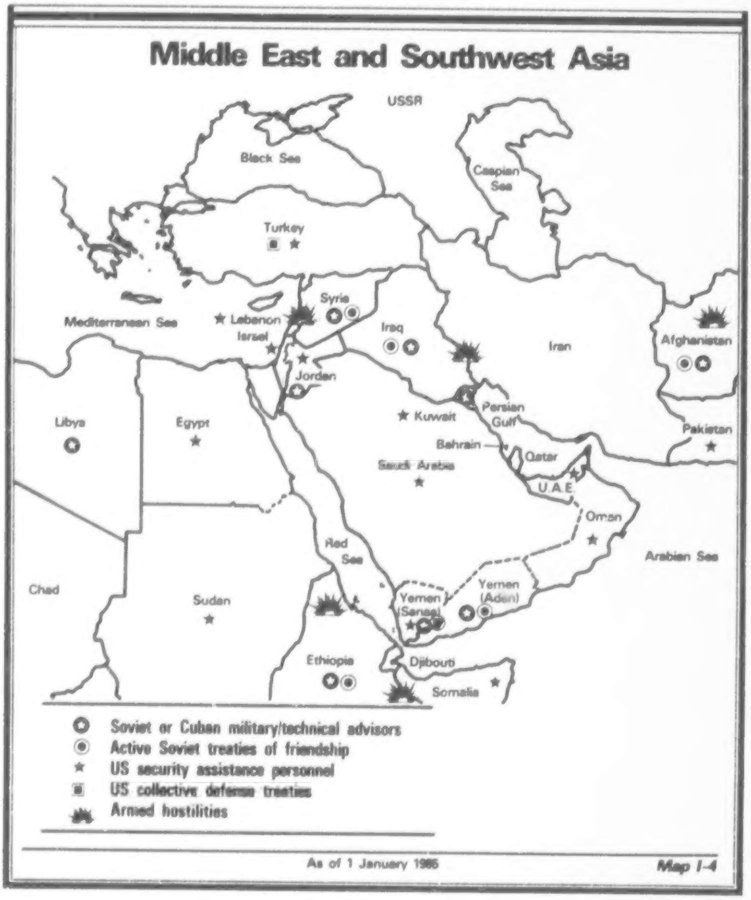
As of 1 January 1986

Map I-3

access to oil resources. The United States remains committed to regional stability and the reduction of tensions that carry risks of wider involvement by the major powers. To accomplish these objectives, the United States is involved in diplomatic initiatives, selected security assistance, and multinational peacekeeping efforts (Map I-4). In recognition of major external threats, the United States is continuing to improve its capability for deploying forces to the region should the need arise. Frequent exercises are conducted to improve this capability. A forward-deployed headquarters element afloat and the presence of naval forces in the area demonstrate US resolve. Chapter IV provides further discussion of the military situation in the region.

Pacific and East Asia

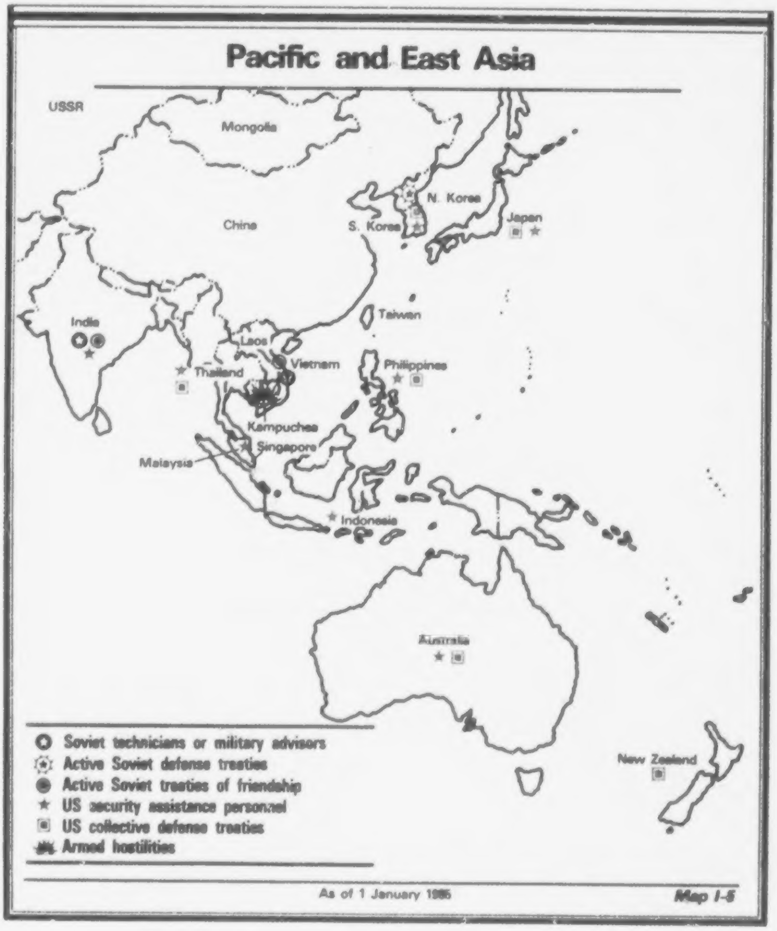
The United States' major security interests in the Pacific and East Asian areas include the promotion of regional stability, strengthening of collective defense


Middle East and Southwest Asia
USSR
Black Sea
Caspian Sea
Turkey
Syria
Mediterranean Sea
Lebanon
Israel
Iraq
Iran
Afghanistan
Jordan
Persian Gulf
Kuwait
Libya
Egypt
Pakistan
Bahrain
Qatar
Saudi Arabia
U.A.E.
Oman
Arabian Sea
Red Sea
Yemen (Sanaa)
Yemen (Aden)
Chad
Sudan
Ethiopia
Djibouti
Somalia
Soviet or Cuban military/technical advisors
Active Soviet treaties of friendship
US security assistance personnel
US collective defense treaties
Armed hostilities

As of 1 January 1985

Map I-4

capabilities, and maintenance of important economic ties. Soviet military capabilities in the region continue to grow, providing greater opportunities for the Soviets to exert influence. The Soviets have expanded their naval presence and increased their overall military presence. North Korea and the Socialist Republic of Vietnam, supported by Soviet assistance, remain major sources of instability within the region (Map I-5). The protection of US and allied interests in the Pacific and East Asian region continues to require forward-deployed air, ground, and naval forces and the ability to reinforce those forces quickly. Chapter IV provides further discussion of the military balance in this region.


Pacific and East Asia
USSR
Mongolia
China
N. Korea
S. Korea
Japan
Taiwan
India
Laos
Vietnam
Thailand
Philippines
Kampuchea
Singapore
Malaysia
Indonesia
Australia
New Zealand
○ Soviet technicians or military advisors
✹ Active Soviet defense treaties
● Active Soviet treaties of friendship
★ US security assistance personnel
▣ US collective defense treaties
✹ Armed hostilities

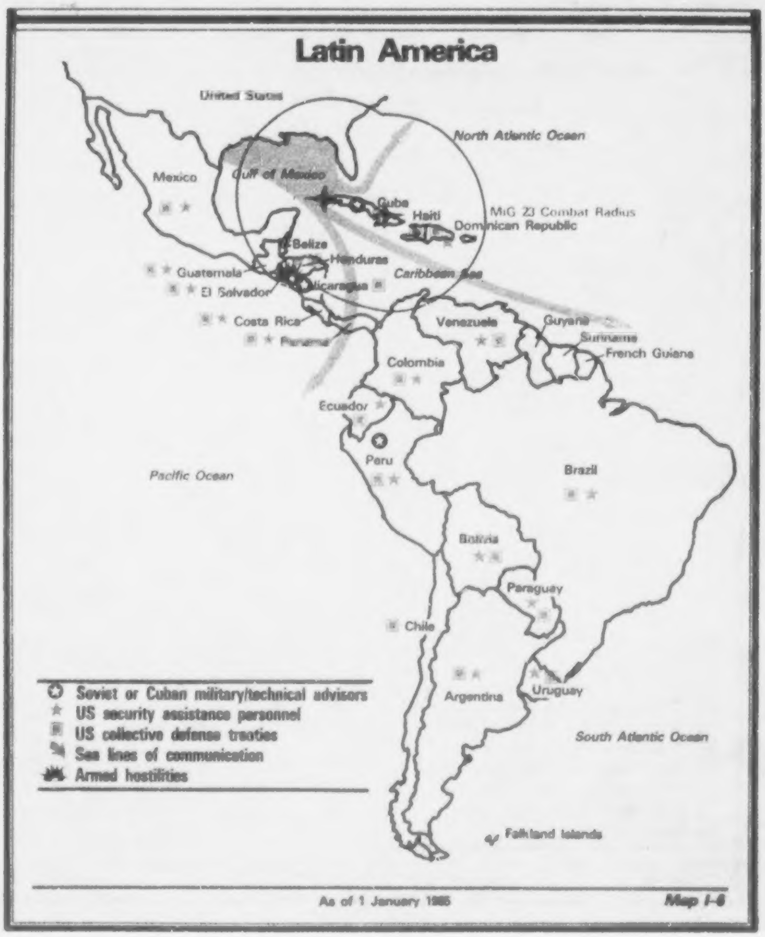
As of 1 January 1985

Map I-5

Latin America

The security and stability of Latin America remain important US objectives. A considerable portion of US trade passes through the Caribbean and, in the event of an attack on NATO, a large percentage of the US supplies required for reinforcing NATO Europe would do so as well (Map I-6). Because of the proximity of Latin America, events there are important to the United States; instabilities and conflicts in this region could divert US attention and resources from other areas of the world.

The continued Soviet presence in the region and Cuban activities contribute to the spread of insur-



Latin America

United States
North Atlantic Ocean
Mexico
Gulf of Mexico
Cuba
Haiti
MiG 23 Combat Radius
Dominican Republic
Belize
Honduras
Guatemala
El Salvador
Nicaragua
Caribbean Sea
Costa Rica
Panama
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Peru
Pacific Ocean
Brazil
Bolivia
Paraguay
Chile
Argentina
Uruguay
South Atlantic Ocean
Falkland Islands
Soviet or Cuban military/technical advisors
US security assistance personnel
US collective defense treaties
Sea lines of communication
Armed hostilities

As of 1 January 1985

Map I-6

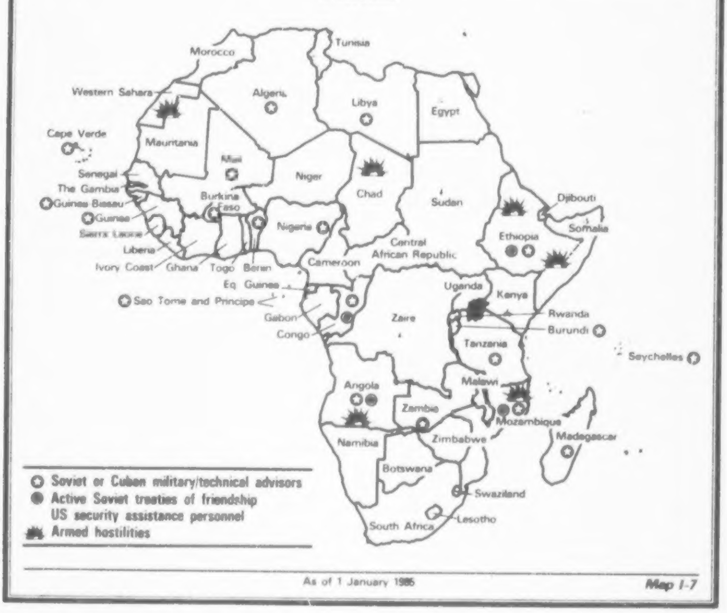
gency and discord, and compound the endemic social, political, and economic sources of instability already troubling many regional states. The Soviets have enhanced the capabilities of their Cuban client by providing modern and sophisticated military equipment. The combined Cuban and Soviet military assistance provided Nicaragua has enabled that country to become the strongest single military power in Central America. For the near term, external support to leftist insurgents in El Salvador and the major arms buildup in Nicaragua are the issues most affecting US security interests in Latin America.

In view of threats to regional interests, the United States must continue to strengthen its relations with the nations of Latin America on the basis of mutual interests. The United States must demonstrate that it is a reliable security partner by helping friends and allies deter and defeat insurgencies, and by assisting in the development of combined military capabilities that serve collective security objectives. Increased security assistance and close military ties will help create conditions under which nations of the region can work to eliminate the underlying causes of instability. Chapter IV contains a discussion of the military balance in Latin America.

Africa

US security interests in Africa stem from the resources that the continent provides Western nations and the transit facilities which might affect US operations in the Mediterranean, Middle East, and Southwest Asia regions. These and other interests are adversely affected by the instability and turmoil in the area that have made many nations vulnerable to influence by the Soviets and their surrogates (Map I-7). Libya's involvement in regional conflicts adds significantly to the difficulties faced by affected states.

Africa


Tunisia
Morocco
Western Sahara
Algeria
Libya
Egypt
Cape Verde
Mauritania
Mali
Niger
Chad
Sudan
Senegal
The Gambia
Guinea Bissau
Guinea
Sierra Leone
Liberia
Ivory Coast
Ghana
Togo
Benin
Burkina Faso
Nigeria
Cameroon
Central African Republic
Ethiopia
Djibouti
Somalia
Eq Guinea
Sao Tome and Principe
Gabon
Congo
Zaire
Uganda
Kenya
Rwanda
Burundi
Tanzania
Seychelles
Angola
Zambia
Malawi
Mozambique
Madagascar
Namibia
Zimbabwe
Botswana
Swaziland
Lesotho
South Africa
✪ Soviet or Cuban military/technical advisors
● Active Soviet treaties of friendship
US security assistance personnel
✹ Armed hostilities

As of 1 January 1986

Map I-7

Tension in the Horn is further exacerbated by the presence in Ethiopia of Cuban forces and Soviet advisors. The presence of Cuban military personnel and Soviet advisors in a divided Angola continues to be an obstacle to efforts to improve stability in southern Africa. US interests require that security assistance be provided to African friends and allies.

Implications for US Strategy and Forces

Military strategy is designed to meet the challenges to US security interests. Such interrelated factors as US-Soviet relations, relative strengths of major nations, global military balance, and current regional military situations must be considered in the formulation of strategy and the development of forces to support it. US military strategy and force levels must be adequate to confront a wide range of challenges, from low-intensity conflict to threats involving modern conventional and nuclear forces.

US MILITARY STRATEGY

The security requirements summarized above form the basis for US military strategy to support the more comprehensive national security strategy that takes into account all elements of the nation's strength. The US military strategy is a defensive one that seeks to deter war while maintaining a secure environment within which the United States, its allies, and friends can pursue legitimate interests. This strategy of deterrence is rooted in a national commitment to peace.

Elements of the Strategy

The fundamental elements of US military strategy are nuclear deterrence with arms reductions; strong alliances; forward-deployed forces; a strong central reserve; force mobility; freedom of the seas, air, and space; effective command and control; and good intelligence.

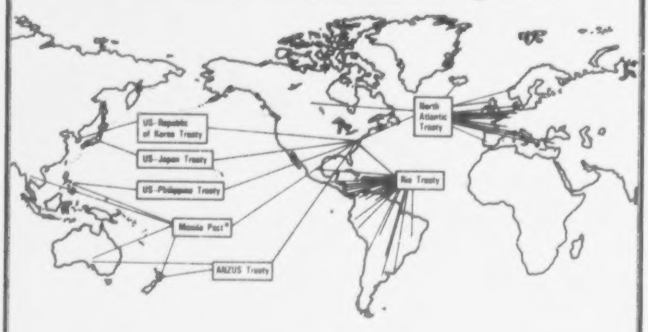
Nuclear Deterrence with Arms Reductions

The fundamental objective of US nuclear forces is to remove all incentives for direct attack against the United States and its allies by ensuring any attacker an unacceptable outcome. The Soviet Union has continued to challenge the US guarantee of effective retaliation by gaining advantages in certain measures of nuclear strength, thereby threatening US deterrent capabilities. To counter growing Soviet nuclear warfighting potential, the United States gives high priority to the modernization of its strategic nuclear forces and the study of means for defending against ballistic missile attack. Equitable and verifiable arms reduction agreements are being pursued in parallel with modernization programs toward the goal of a more stable nuclear balance at lower levels of armament.

Strong Alliances

US military strategy is based on a system of strong alliances (Map I-8). The shared values and combined economic strength of the advanced industrial

United States Collective Defense Arrangements



* United Kingdom and France

As of 1 January 1985

Map I-8

countries provide a firm basis for effective collective security among the NATO nations and US allies elsewhere. The cohesion of US collective security arrangements requires understanding that the interests of the United States and its allies may not always coincide. Nevertheless, US alliances are more reliable than those of the Soviet Union because they are built on shared values, mutual trust, common purpose, and strong commitment.

In this period of rough nuclear parity between the United States and the Soviet Union, conventional military forces have become increasingly important. The Warsaw Pact has fielded large armies with modern conventional and nonstrategic nuclear weapons. The United States alone does not match these forces in numbers. The allies make a significant contribution to deterrence by providing weaponry, well-trained manpower, facilities, and control of key geographical areas, thereby enabling the Free World to meet Soviet challenges.

Forward-Deployed Forces

Forward-deployed military forces are a key factor in the success of US alliances. These forces demonstrate to allies the US commitment to the common defense; to the Soviets they serve notice that an attack will be met immediately by US opposition. In the event of attack, forward deployment ensures a strong combined defense and facilitates reinforcement. In peacetime, the American presence among allies reduces the coercive potential of Soviet military threats.

Central Reserve

The majority of US military forces, including most of the strategic nuclear and conventional forces, are based in the United States. These forces contribute to deterrence of major conflict, provide a capability to reinforce and sustain forward-deployed forces, and help deter or contain conflicts where there is no permanent US military presence.

Force Mobility

Successful implementation of the US military strategy requires highly capable airlift and sealift forces. Overflight arrangements and access rights to overseas airfields, ports, and staging areas contribute to deployment flexibility and efficiency. The prepositioning of supplies and equipment in certain areas and host-nation support are also important components of US reinforcement capabilities.

Freedom of the Seas, Air, and Space

Freedom of navigation and access to space are inherent elements of US military strategy. Unimpeded use of the seas and airspace allows support and reinforcement of forward-deployed forces, enables US and allied forces to operate worldwide, and ensures uninterrupted commerce for the nation.

Freedom to operate in space is a modern military requisite. The United States depends heavily on satellites for early warning of missile attack, surveillance, and command and control. Superior space technology will be required to ensure uninterrupted US use of key space assets.

Command and Control

Effective command and control is imperative to the successful employment of military forces. Command and control systems provide the essential link between the NCA, Joint Chiefs of Staff (JCS), and commanders in the field. Supporting systems that operate effectively during all phases of conflict add to deterrence and are vital should deterrence fail.

Intelligence

US military strategy depends heavily on accurate and timely intelligence for warning and the effective employment of military forces. Such intelligence increases the likelihood that forward-deployed and reinforcing forces will deter conflict or defend successfully, and maximizes the capabilities of modern weapon systems.

Applying the Strategy

US forces are not available to defend simultaneously against every threat with equal strength. Nonetheless, the United States must make it clear that its interests will be defended and obligations to allies met. US force employment planning considers the fundamental tasks that must be accomplished and the need to retain flexibility to meet other contingencies that threaten US security interests.

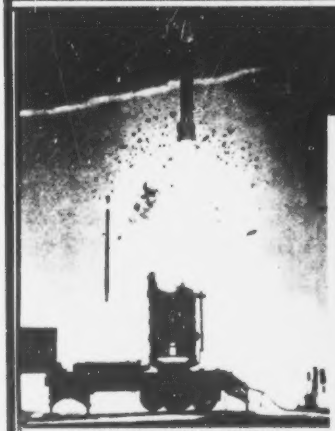
Should deterrence fail, US military forces will undertake missions to achieve national and alliance objectives, and restore peace on terms favorable to the United States, its allies, and friends. US forces would seek to limit the scope, duration, and intensity of any conflict in which they were involved.

Sound military doctrine is essential to the successful implementation of US strategic concepts. Joint doctrine ties together the capabilities of the Services, guiding both the development and employment of forces. Effective joint doctrine helps prevent duplication and gaps in Service capabilities and aids in the translation of plans into execution.

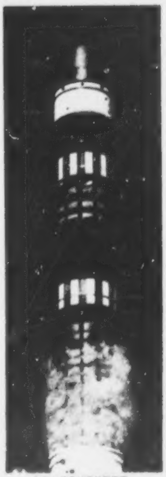
The US strategy is designed to capitalize on the enduring strengths of the United States — its political and social values, diversified economy, advanced technology, and the ingenuity of its people. To succeed, the strategy will continue to require the help of supportive allies and the flexibility to adapt to a changing world.

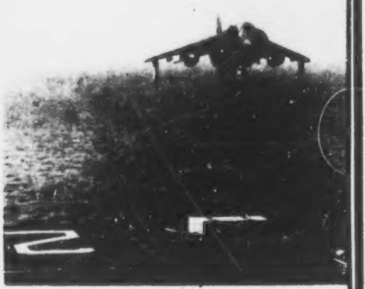
PREPARING FOR THE FUTURE

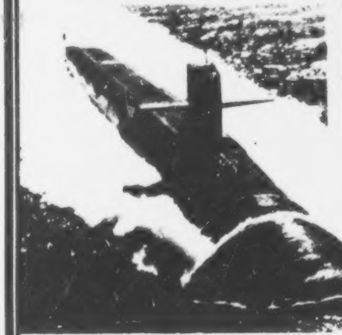
The capabilities of US military forces continue to improve. Trends in overall combat capability show progress. Service programs allow more and better training, result in better maintenance, and provide essential spare parts and supplies. New weapons are being introduced and steps are being taken to improve the sustainability of the force. The quality of American servicemen and women is high and their morale, patriotism, and skills are important factors in the improved military posture.


PATRIOT AIR DEFENSE SYSTEM

B-1B BOMBER


PEACEKEEPER


MARINE CORPS AV-8B HARRIER


TRIDENT BALLISTIC MISSILE SUBMARINE

ABRAMS TANK

The proposed defense program for fiscal year (FY) 1986 will continue the momentum of the past year by improving modernization, readiness, and sustainability, and strengthening the force structure.

The United States continues to place a high priority on the modernization of its strategic forces. The aim of this vital effort is to improve all legs of the TRIAD and make command and control systems more survivable. The development and deployment of the PEACEKEEPER missile, the small intercontinental ballistic missile (ICBM), TRIDENT II (D-5) submarine-launched ballistic missile system (SLBM), B-1B and Advanced Technology Bombers (ATB), and air-launched cruise missile (ALCM), will help improve the US strategic deterrent. These nuclear weapon modernization programs are essential for deterrence and meaningful arms reduction negotiations.

Major efforts are under way to address US strategic defense and military requirements for space. Under the Strategic Defense Initiative (SDI), research is being conducted on defense against ballistic missiles. Recognizing the increasing role of space in supporting national interests, the United States will establish a unified command to support a comprehensive military space policy.

Nonstrategic nuclear force modernization continues with the production of modernized field artillery warheads and the fielding of PERSHING II, nuclear TOMAHAWK land-attack missiles (TLAM/N), and ground-launched cruise missiles (GLCMs). Improved command, control, and communications will increase the survivability, flexibility, and deterrent capability of deployed theater forces.

The modernization of conventional forces is another key objective of the US defense program. Land forces are undergoing organizational changes to improve their flexibility and maximize the effectiveness of recently introduced weapons, such as the ABRAMS tank, BRADLEY fighting vehicle, Multiple-Launch Rocket System (MLRS), and PATRIOT and STINGER air defense systems. As a result of organizational improvements, the Army's 17 Active and 9 National Guard divisions will be restructured to 18 Active and 10 National Guard divisions. The United States continues to build toward a 600-ship Navy with 15 carrier battle groups, 4 battleship surface action groups, 100 modernized attack submarines, and expanded amphibious assault and sealift capabilities. Additionally, more capable combat aircraft and modernized munitions are being obtained to build and strengthen an Air Force of 40 tactical fighter wing equivalents. These programs, together with new maritime pre-positioning ships (MPS), increased strategic airlift and sealift, and improved special operations forces, will enhance the readiness posture of US forces and their sustainability.

Good soldiers, sailors, airmen, and marines are essential to successful implementation of the US military strategy. Service manpower programs are aimed at recruiting and retaining people who value service to their nation and have the aptitude and motivation to operate and maintain modern weapon systems.

The programs initiated to restore and maintain US military strength must be continued. Constant attention and sustained support are required to keep our forces strong. Short-term attempts to economize on military investments, whether in people or equipment, can only lead to higher future costs and a less effective military posture.

CHAPTER II.
STRATEGIC REQUIREMENTS AND RESOURCE COMMITMENTS

INTRODUCTION

US military strategy requires resources to maintain the readiness of the forces, modernize for the future, and provide a recognized capability to mobilize additional forces rapidly. The US Armed Forces must, therefore, be supported by an efficient, effective national resource base. This chapter provides an overview of the US and Soviet resource bases that support military requirements.

The heavy Soviet investment in nuclear and conventional forces provides evidence of the high priority Soviet leaders place on military requirements. The United States devotes relatively fewer resources to its military posture, in part because of the defensive nature of the US military strategy and the structural differences in the two economies. The Soviet system of central planning has led to a weaker economy overall, but allowed greater focus to be placed on areas of priority. Despite a smaller economic base than the United States, the Soviet Union has decided to direct more peacetime resources to military requirements.

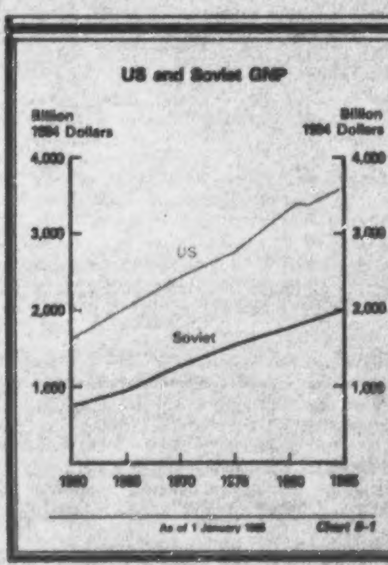
RESOURCES IN SUPPORT OF NATIONAL OBJECTIVES

Overview

A nation's economy must be strong to support its national security objectives effectively. The industrial base must be capable of producing the required military equipment from available materials and be supported by adequate manpower. The population base must provide the skilled labor to support the production base and meet the manpower requirements of the armed forces. Further, the industrial base must be responsive to critical wartime needs and able to respond to surge requirements. The necessary raw materials must be available under all conditions. The United States requires a strong technological base to ensure that its forces continue to be equipped with qualitatively superior weapons.

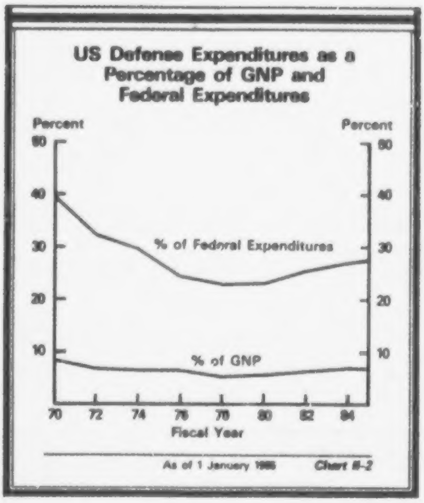
Economic Support

The economic strengths of the United States and the Soviet Union can be compared by examining their gross national products (GNPs). Chart II-1 shows that the US GNP is more than 80 percent higher than that of the Soviet Union. Further, the gap has continued to widen in favor of the United States. Thus, the United States has a greater potential for supporting defense spending.


US and Soviet GNP

As of 1 January 1985 Chart II-1

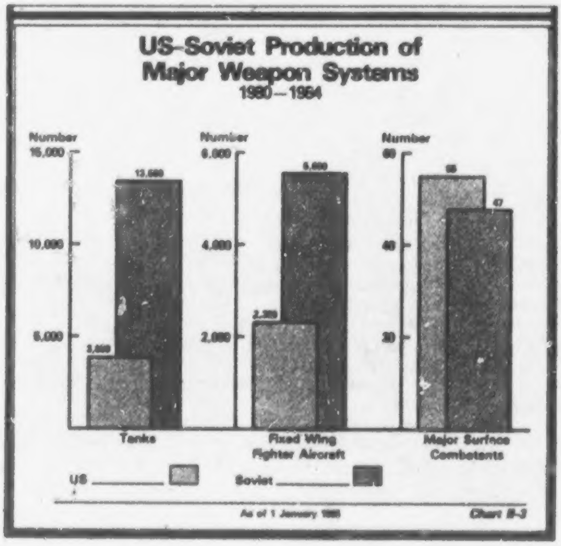
The Soviet Union has steadily increased its defense expenditures. During the past 10 years, the Soviets have spent more than three times as much as the United States on strategic forces and about 1-1/2 times as much on conventional and nonstrategic nuclear forces. The Soviet inventory of weapons is far larger than that of the United States. Also, the average age of deployed Soviet weapons has decreased and the quality has improved. Although the decline in US defense spending has been reversed, as shown in Chart II-2, strong and sustained support for defense activities will be necessary in light of Soviet inventory expansion and its continuing high rate of investment.



Industrial Base

The military potential of nations can be measured, in part, by peacetime production bases and the capability for rapid conversion to wartime needs. The Soviet defense industry is now the world's largest, both in numbers of facilities and output capacity. Chart II-3 shows US and Soviet production of selected weapon systems for both internal use and export over a 5-year period. If the full industrial capabilities of both nations were mobilized for military production, the United States would initially be unable to match Soviet industrial production. Over time, however, the United States, because of its greater industrial base, could surpass Soviet capabilities in terms of both size and output. The timing and degree of emphasis the United States places on mobilization of its industrial base would be critical to the successful outcome of a major conflict with the Soviet Union.

Soviet weapon plants and war-related production facilities are continually active; as old weapon programs are phased out, new ones are begun. As a result, the Soviet arms industry is in a high state of readiness and is capable of rapid wartime expansion.



In the United States, however, the increased emphasis on high-technology manufacturing and the growth of service industries, combined with the decline of heavy industry and traditional manufacturing required for arms production, have reduced the capacity to increase military production rapidly during periods of crisis.

US defense planners have taken several steps in the past few years to improve the ability of the US industrial base to support the military strategy. The Services are provided prioritized lists of systems identified by field commanders as most critical to their immediate requirements. Additionally, industrial preparedness planning is receiving increased attention, and industrial mobilization is being addressed extensively in exercises. Incentive programs are stressing efficient and competitive peacetime production to meet the demands of wartime sustainability. There is a continuing need for investments to ensure that necessary improvements are made to the US industrial base.

Natural Resources To Support Defense

The ability to mobilize and increase wartime production is affected by the availability of critical raw materials. These materials must be indigenous to the country, stockpiled, or available over secure LOCs in time of war. The Soviet Union, which has extensive and varied mineral resources and a policy of self-sufficiency, relies on imports for only a few strategic raw materials (Chart II-4). The United States, on the other hand, relies on foreign sources for most strategic minerals. US industry and government must anticipate problems in maintaining critical raw material stocks for military production in wartime.

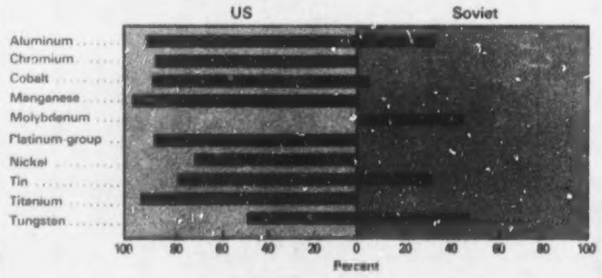
Manpower in Support of Defense

Both the United States and the Soviet Union depend on large labor pools to man their armed forces and provide skilled labor to support their production bases. While the Soviet military forces are 2-1/2 times larger than those of the United States, their primary mobilization pool of 18- to 50-year-old males is only 12 percent bigger (Chart II-5). Approximately 2 million males reach age 18 annually in each country.

Conscription is the principal source of Soviet military manpower. The period of service is normally 2 to 3 years. Soviet conscription significantly reduces personnel costs and guarantees a sizable trained manpower source for mobilization. Nine million of the estimated 50 million Soviet reserve forces have served on active duty during the last 5 years.

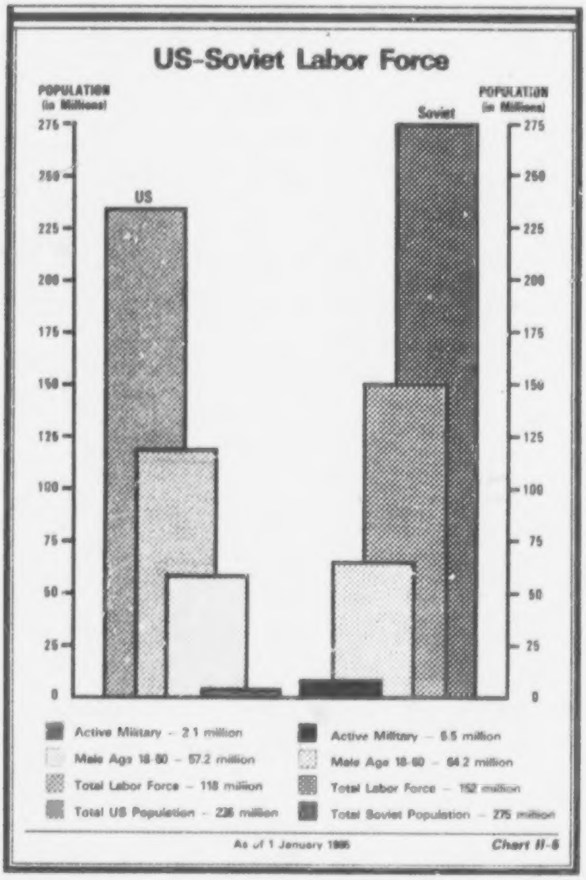
On balance, the Soviet manpower advantages lie in the numbers of personnel already under arms or involved in defense production, and the trained military mobilization pool. The size of the US labor pool should be sufficient to meet the demands of both the armed forces and military production because the United States has a less labor-intensive production base. The ability of the United States to meet both

US-Soviet Reliance on Selected Mineral Imports



As of 1 January 1985

Chart II-4



US-Soviet Labor Force

As of 1 January 1986

Chart II-6

demands will depend, in part, on the availability of adequate response time.

OVERCOMING A QUANTITATIVE DISADVANTAGE

Technological Leadership

Because of a greater degree of peacetime mobilization, the Soviet Union has forces with a quantitative advantage over those of the United States. One US approach to countering numerically superior enemy forces is to field qualitatively superior ones. This approach requires the United States and its allies to maintain the lead in critical military technologies. Technological progress increases the deterrent value of US forces and provides a hedge against Soviet technological breakout. US advanced technology also imposes strategic costs on the Soviets by causing them to divert resources from more easily produced systems in order to counter new, more capable US systems. The importance of technology has never been more obvious than it is today. Yet, as Chart II-6 indicates, the US lead in several key technologies is slipping. Strong US and allied technological bases must be maintained if their qualitative lead in fielded systems is to be retained.

US and allied technological leadership and cooperation are even more important now because the Soviets have fielded new equipment some of which is comparable in quality to that produced in the West. Since there are limits to the forces that the United States and its allies can build and operate, US and allied planners must search for ways to increase the effectiveness of the forces they do field through the exploitation of emerging technologies, sound operational concepts, and effective training.

Emphasis must be given to technologies that provide the greatest increase in capability and advantage while ensuring the readiness of current forces. High technology cannot provide the solution to all military requirements. Technically superior equipment

Comparison of Key Military Technologies

Basic Technologies	US Superior	US–Soviet Equal	Soviet Superior
Aerodynamics/Fluid Dynamics		X	
Chemical Warfare			X
Computers & Software	⬅ X		
Conventional Warhead (including chemical explosives)		X	
Directed Energy (lasers)		X	
Electronic Warfare	X ➡		
Electro-Optical Sensor (including IR)	X ➡		
Guidance & Navigation	X ➡		
Microelectronic Materials & Integrated Circuit Manufacture	X		
Nuclear Warhead		X	
Optics	X ➡		
Power Sources (mobile)		X	
Production Manufacturing (includes automated control)	X		
Propulsion (aerospace and ground vehicles)	X ➡		
Radar Sensor	X ➡		
Signal Processing	X		
Stealth (signature reduction technology)	X		
Structural Materials (light-weight, high-strength)	X ➡		
Submarine Detection	X ➡		
Telecommunications	X		

➡ Indicates US lead is diminishing ⬅ Indicates US lead is increasing

As of 1 January 1985

Chart II-6

can only complement, not replace, superior planning, sound doctrine, and sustained support. Every proposed application of new technology must strike a balance among technical sophistication, essential readiness, cost, and the endurance of our forces.

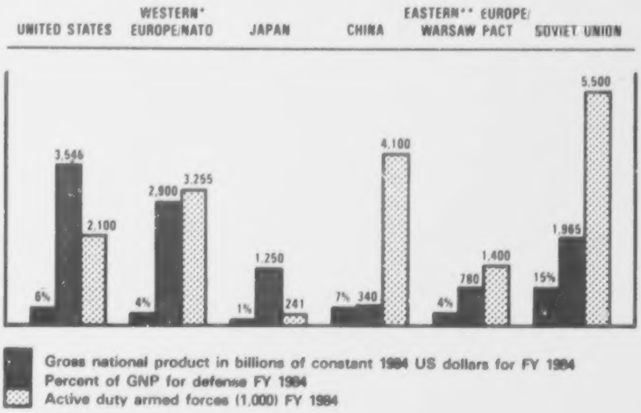
The maintenance of a US technological advantage also depends upon efforts to prevent the transfer of critical technology from the United States and other advanced nations to the Soviets and other potential adversaries. The transfer of such technology to potential adversaries reduces their cost of acquiring new capabilities, allows them to deploy new systems sooner, and provides data that can be used to counter the effectiveness of US weapon systems and equipment.

Allied Forces

Strong alliances are an important part of US military strategy. The relative economic and military strengths of the major nations and blocs are indicated in Chart II-7. The chart shows the impressive potential of the democratic economies. US allies add substantially to the overall defense effort in terms of both defense activities and investment.

US and allied defense efforts must be integrated effectively to ensure that their collective capabilities are realized. The need persists for greater interoperability between US and allied equipment, munitions, and techniques. The United States and its NATO Allies are continuing to improve their capabilities for mutual support and coordination, particularly in the logistics field. Interoperability with friendly and allied Asian countries is improving through equipment and procedure modifications and frequent combined military exercises.

Economic and Military Strength of Major Powers



* Excludes US, includes France and Spain

** Excludes Soviet Union, Albania, and Yugoslavia

As of 1 January 1985

Chart II-7

CHAPTER III. THE MILITARY BALANCE: NUCLEAR FORCES

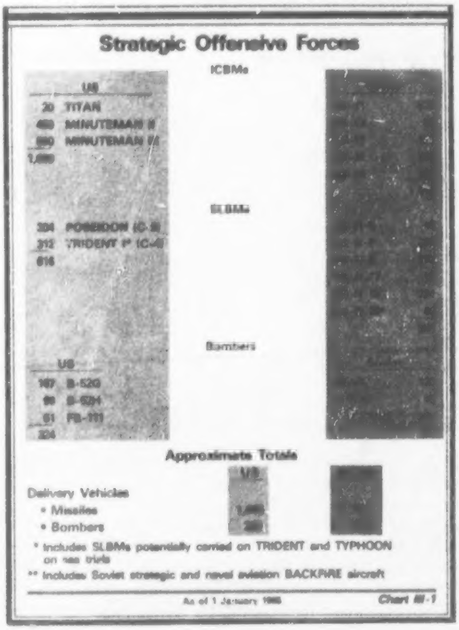
INTRODUCTION

A balance in military forces is critical to US and allied security. Adverse trends in either nuclear or conventional force capabilities lessen assurance that aggression against US and allied interests can be deterred and increase the risks of coercion. Although significant progress has been made toward redressing trends unfavorable to the West, this progress has not compensated fully for decades of high Soviet investment in force expansion and modernization. US programs are designed to improve the capabilities of the nuclear deterrent through development and deployment of technologically advanced systems. The modernization of the US TRIAD, coupled with improvements in warning systems, command and control capabilities, and nonstrategic nuclear forces, is essential to reverse adverse trends in the nuclear balance and increase stability.

This chapter compares the strategic and nonstrategic nuclear forces of the Soviet Union with those of the United States. Chapter IV assesses conventional forces.

STRATEGIC NUCLEAR FORCES

The Soviets' strategic thinking holds that with superior capabilities they can fight and win a nuclear war against the United States. The sustained Soviet strategic buildup during the past two decades is a product of this thinking. Chart III-1 shows that the Soviets hold a distinct advantage in terms of total numbers of strategic offensive forces. The Soviets have improved all aspects of their strategic offensive forces and supporting elements, significantly modernized their command and control capabilities, and continued to build up their strategic defenses. The Soviets are convinced that their strategic nuclear forces



* Includes SLBMs potentially carried on TRIDENT and TYPHOON on sea trials

** Includes Soviet strategic and naval aviation BACKFIRE aircraft

As of 1 January 1985 Chart III-1

will deter attacks on the Soviet Union and reduce the will of others to challenge Soviet political or military actions in general.

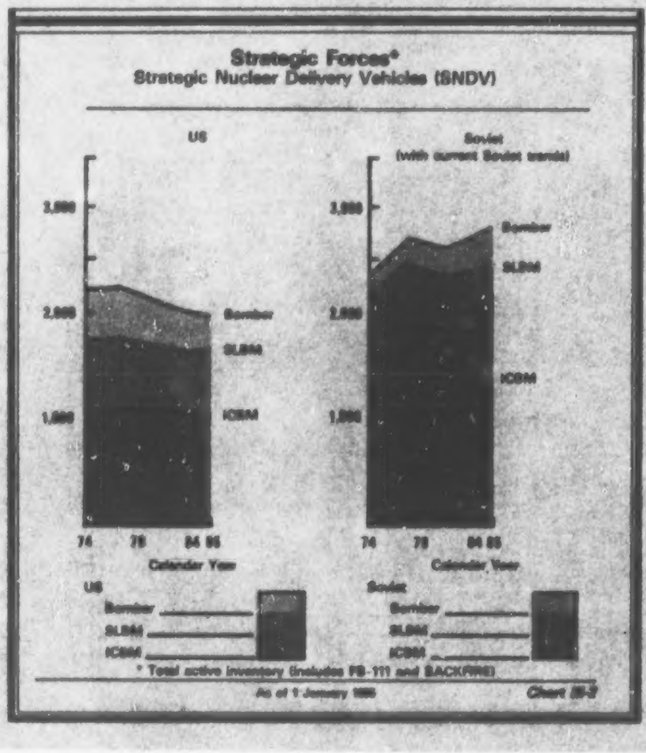
The US strategic nuclear posture is based upon the TRIAD, a combination of land-based ICBMs, SLBMs, and long-range bombers. The TRIAD continues to provide a balanced range of offensive capabilities. The US nuclear deterrent also includes warning systems and command and control capabilities that provide connectivity and positive control between the strategic forces and the NCA. Additionally, strategic defensive forces contribute to deterrence by reducing the potential effectiveness of an attack.

The need to maintain a survivable TRIAD is clear. The capability and variety of the US TRIAD of offensive forces complicate Soviet first strike planning and give the United States the resiliency and flexibility for a measured response to any type of attack. Past US strategic force modernization efforts have not kept pace with the improvements in Soviet capabilities (Chart III-2). The strategic modernization program is designed to rectify this situation and requires sustained commitment.

Strategic Offensive Forces

Strategic Offensive Force Potential

The assessment of the military balance is a complex process involving quantitative analyses as well as judgments concerning such intangible and unquantifiable factors as leadership, training, and morale. Static force measurements can provide useful com-



* Total active inventory (includes FB-111 and BACKFIRE)

As of 1 January 1985

Chart III-2

parisons of capabilities, but do not adequately reflect the interaction of forces in war. Whenever possible, static force comparisons should be complemented by dynamic analyses that attempt to incorporate operational factors and provide a better picture of the military balance.

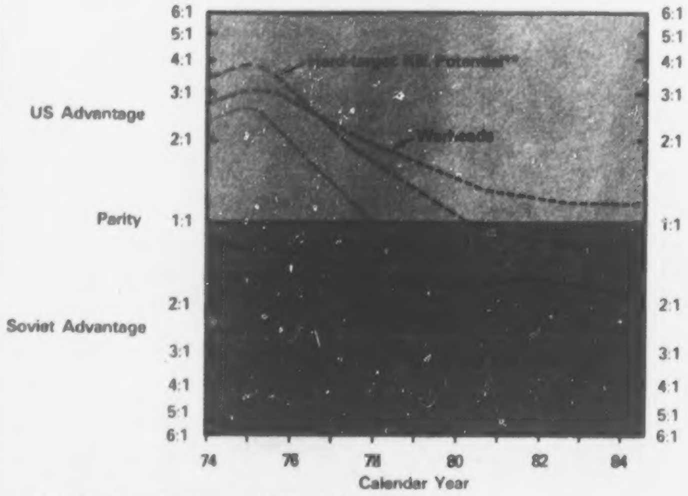
US and Soviet strategic force potential can be compared by an examination of such static measures as equivalent megatons and numbers of systems. The trends in strategic nuclear force capabilities displayed in Chart III-3, which identifies key static indicators, show a continued shift toward a Soviet advantage. The relative strategic force capabilities depicted reflect a general summation of force attributes. Such measures do not reflect the adequacy of military force for specific missions, although they are useful in describing relative trends.

The Soviets took the lead in equivalent megatons (soft-area-target capability) in the mid-1970s and have increased their capability substantially since then. The United States, on the other hand, has reduced its total equivalent megatons over the past decade as weapon accuracies have improved.

The principal factors contributing to the favorable Soviet trend are the deployment of fourth-generation ICBMs and modernization of their submarine force, which significantly increased their

Strategic Forces*

Preattack Static Ratio Comparison



* Total active inventory (includes FB-111 and BACKFIRE)

** Hard-target kill potential represents ability to destroy targets reinforced to withstand some effects of a nuclear blast

*** Calculations are based on potential against identically hardened targets

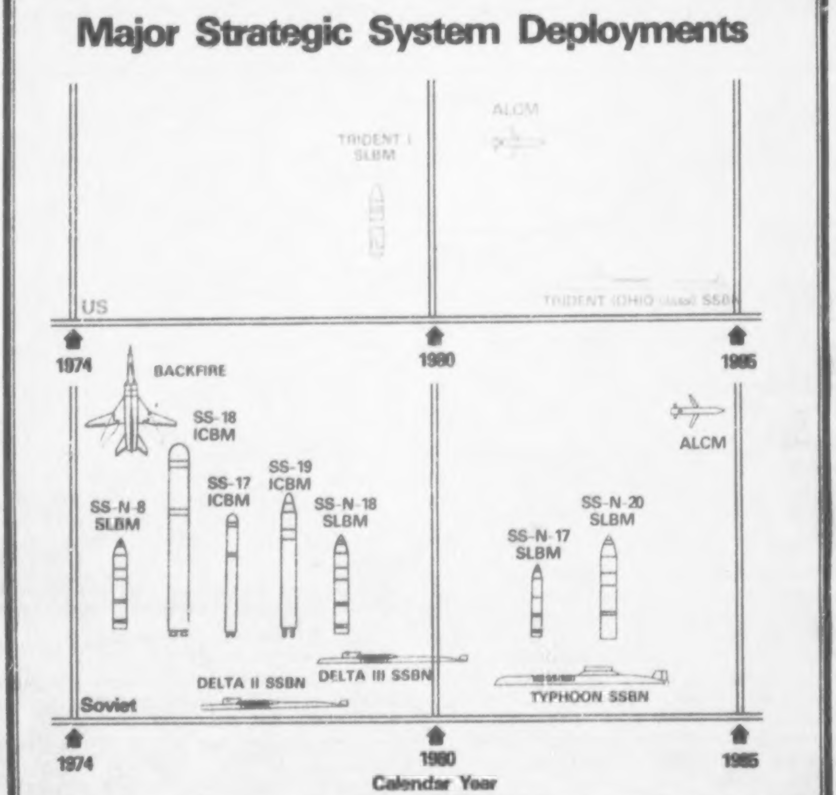
As of 1 January 1985

Chart III-3

inventory of high-quality strategic warheads. The Soviet deployments are shown in Chart III-4. The Soviets have increased their ICBM strategic warheads more than threefold over the past decade. During the same period, the number of US strategic warheads increased to a lesser extent, as the US inventory shifted to a slightly higher number of warheads of lower average yield.

The predominant system of the Soviet nuclear force is the land-based ICBM. The Soviets have achieved a significant increase in the capability of this force through the deployment of large numbers of high quality reentry vehicles (RVs). Today, the most accurate versions of the SS-18 and SS-19 missiles are capable of destroying most time-urgent and hardened targets in an initial attack on the United States. Ad-

Major Strategic System Deployments



As of 1 January 1985 *Chart III-4*

ditionally, a large number of these Soviet weapons could remain in reserve.

The Soviets are also modernizing their SLBM force. Since 1974 they have deployed three new classes of nuclear-powered ballistic missile submarines (SSBNs) and have a fourth undergoing sea trials. The DELTA-II, -III, and -IV classes reflect improvements in size, operational capabilities, and missile systems. The earlier DELTA-I and the DELTA-II carry the SS-N-8 single-reentry vehicle missile; the DELTA-III carries SS-N-18 multiple, independently targetable reentry vehicle (MIRVed) missiles. To date, the Soviets have launched three TYPHOON-class SSBNs, two of which are operational. TYPHOON-class submarines carry 20 SS-N-20 missiles. These missiles are armed with six to eight warheads and have a range of approximately 5,000 nm. All of these systems except the SS-N-17, which is carried on a YANKEE-II-class SSBN, are capable of striking targets throughout most of the United States from Soviet home waters. The Soviets have also launched the first DELTA-IV-class ballistic missile submarine, which should become operational in 1986. The DELTA-IV is intended to carry the MIRVed SS-NX-23 that is now being tested.

SOVIET DELTA-III SSBN

The Soviets have taken steps to improve their strategic bomber force. Some older, long-range BEAR aircraft, which are being reconfigured to carry the more capable, supersonic AS-4 air-to-surface missile (ASM), are capable of threatening the continental United States. The BACKFIRE, which also threatens the United States, is being produced at the rate of about 30 per year. The BACKFIRE can perform nuclear strike, conventional attack, and reconnaissance missions.

Soviet long-range, land-attack cruise missiles are currently in the flight testing and production phases. The AS-15 is now operational, and SS-NX-21 deployments are imminent.

Since the early 1970s US strategic force improvements have focused on modifications to existing systems. The major improvement to the US ICBM force since the upgrading of MINUTEMAN silos in 1973 has been the fielding of more accurate and higher yield warheads for a portion of the MINUTEMAN III force. US SLBM capabilities were improved by equipping the entire force with MIRVed missiles. In addition, between 1979 and 1983, 12 POSEIDON submarines were retrofitted with the more accurate, higher yield TRIDENT I (C-4) missile. This longer range SLBM allows expanded patrol areas and shorter travel distance to patrol stations. The C-4 missile provides the US a limited capability to launch against Soviet targets from US waters. The OHIO-class SSBN, introduced in 1982, is also fitted with C-4 missiles. The United States has not fielded a new long-range strategic bomber since 1962. However, improvements have also been made to this component of the TRIAD. The B-52 fleet is now outfitted with 1,080 ALCMs, and avionics modifications are improving its penetration capability against increasingly dense and sophisticated Soviet air defenses. As strategic modernization progresses, B-52G/Hs will become standoff cruise missile carriers.

TRIDENT 1(C-4) MISSILE

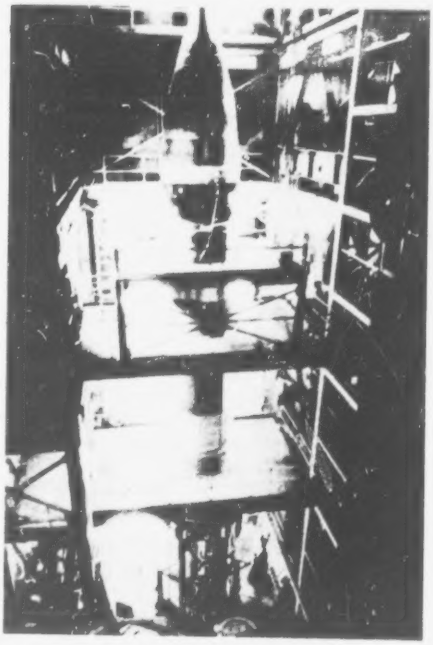
B-52 LAUNCHING ALCM

Strategic Offensive Force Modernization

The Soviets have more than 30 new strategic offensive systems in various stages of development. Projections for the next decade include new solid-propellant medium and small ICBMs, both silo-based and mobile, and improvements to currently deployed ICBMs. Follow-on systems are expected to have greater accuracy and targeting flexibility. SLBM projections include continued deployment of the SS-N-20 SLBM and testing of the SS-NX-23. The airbreathing threat (aircraft and cruise missiles) is also likely to grow. Continued BACKFIRE production will account for most of the increase in the number of delivery vehicles. The deployment of the BEAR H and new BLACKJACK A intercontinental bombers will also increase the airbreathing threat; both bombers will carry AS-15 long-range cruise missiles. The airbreathing threat will also include land- and sea-launched cruise missiles with maximum ranges of 1,600 nm.

The US strategic force modernization program is intended to redress adverse strategic force trends. Offensive force modernization plans include deployment of 100 PEACEKEEPER missiles, with an initial operational capability (IOC) in 1986, and a small ICBM in the early 1990s. In addition, at least one TRIDENT SSBN will be produced per year. The TRIDENT II D-5 missile will be deployed with these SSBNs in 1989. The B-1B bomber will become operational in 1986 and the ATB will be produced to supplement the B-1B in the early 1990s. Deployment of these systems will demonstrate US resolve to establish a more stable nuclear balance.

The future deployment of 100 PEACEKEEPER missiles in existing MINUTEMAN silos will provide a partial answer to the imbalance in prompt hard-target kill capability. As part of the modernization effort, engineering development was started on a small single-warhead ICBM. Early basing considerations have focused on mobility as a primary means to enhance system survivability. Concurrently, the MINUTEMAN force is being modernized to improve its reliability, responsiveness, and supportability.



PEACEKEEPER IN TEST STAND

The TRIDENT SSBN will support the D-5 missile now under development. The D-5 missile will deliver a larger payload with improved accuracy at ranges to 4,000 nm. The accuracy-payload combination will give the SLBM force a hard-target kill capability at ranges that maintain submarine survivability.

The B-1B is an important TRIAD modernization program. With its high-speed, low-altitude capability, its reduced radar cross-section, and improved electronic countermeasures (ECM) equipment, the B-1B will complicate detection and interception by the

Soviets. The B-1B is designed to penetrate Soviet defenses well into the 1990s. The strategic modernization program also calls for the development of an ATB with stealth characteristics. Plans call for the ATB to deploy in the 1990s to neutralize an increasingly sophisticated Soviet air defense system.

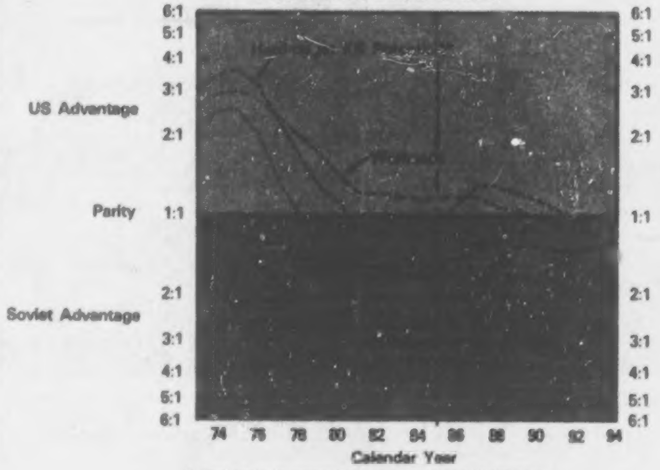
Chart III-5 compares static measures of US and Soviet strategic offensive force capability for the period 1974-1994. The Soviet force projections represent a moderate force that is a continuation of current trends. The US force consists of weapon systems programmed through 1990 plus those systems in the strategic modernization program to be deployed after 1990.

Chart III-5 shows trends favoring the Soviet Union until the late 1980s, at which time the benefits of US modernization programs begin to offset some Soviet advantages. The US advantage in total warheads will continue to decline until the Soviets begin to achieve an advantage in the early 1990s. This projected quantitative and qualitative growth in Soviet offensive weapons should be offset by planned and programmed US modernization efforts. The increased effectiveness of the PEACEKEEPER ICBM and TRIDENT D-5 will act as a counterbalance to the Soviet time-urgent hard-target kill potential (HTKP) represented by SS-18 and SS-19 forces. Even though the United States lost its HTKP advantage in 1981, improvements in US ballistic missiles and bombers and continued deployments of ALCMs will move the HTKP toward a balance. As the Soviets make qualitative improvements in their ICBMs and replace older SS-11, SS-13, and SS-17 missiles with greater numbers of a new generation of ICBMs like the SS-X-24 and SS-X-25, the corresponding US deployment of PEACEKEEPER, small ICBM, TRIDENT, B-1B, and

Strategic Forces*

Preattack Static Ratio Comparison

(with current Soviet trends)



* Total active inventory (includes FB-111 and BACKFIRE)

** Calculations are based on potential against identically hardened targets

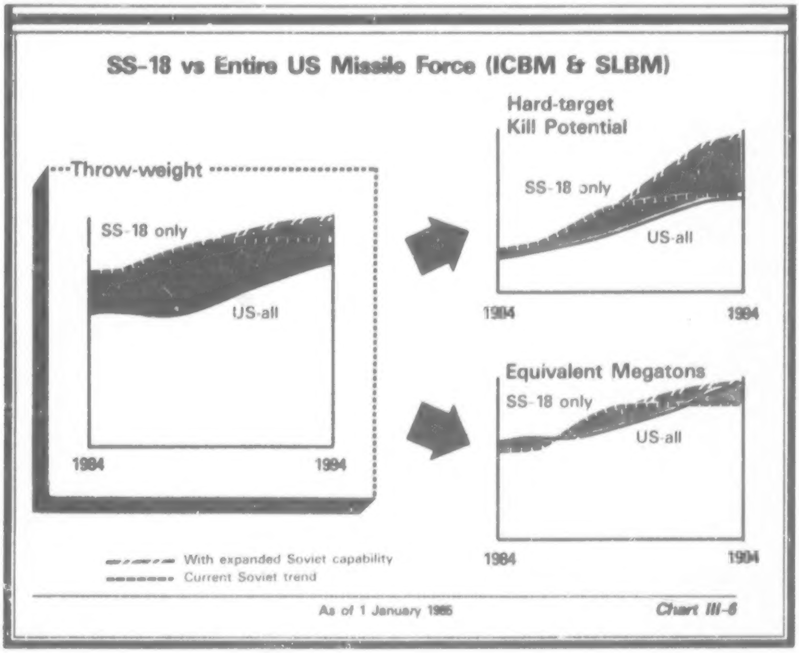
As of 1 January 1985

Chart III-5

ATB should offset Soviet counterforce capabilities. It should be noted, however, that the calculation of HTKP did not consider that Soviet ICBM silos are hardened to a greater degree than those of the United States or that Soviet air defenses are more extensive. In the late 1980s, US deployments of modernized systems should also reverse the trend in equivalent megatons; the Soviets will retain an equivalent megatonnage advantage, however.

The validity of the projections in Chart III-5 depends upon continued progress in the US strategic force modernization effort and assumes that the Soviets will not deploy forces in excess of current projections. The static measures in Chart III-5 display the total strategic capabilities of both countries, a comparison which includes many older and less capable systems. Yet, as shown in Chart III-6, the current Soviet force of 308 SS-18s has more throw-weight potential than the combined force of all current US ICBMs and SLBMs. If the Soviets increase the number of warheads carried on each SS-18, which is within their capability, the corresponding equivalent megatons and HTKP of the SS-18 could approach the capabilities of the entire modernized US ICBM and SLBM force.

The Soviets have the capability to increase their force levels significantly above those shown in previous charts. Chart III-7 compares planned and programmed US forces with achievable Soviet force levels and, in some cases, more technically advanced systems. In this comparison, static force trends favor the Soviets beyond the 1980s. If the Soviets were to modernize at this expanded rate, it would be difficult for the US modernization program to halt the downward trend during the late 1980s.

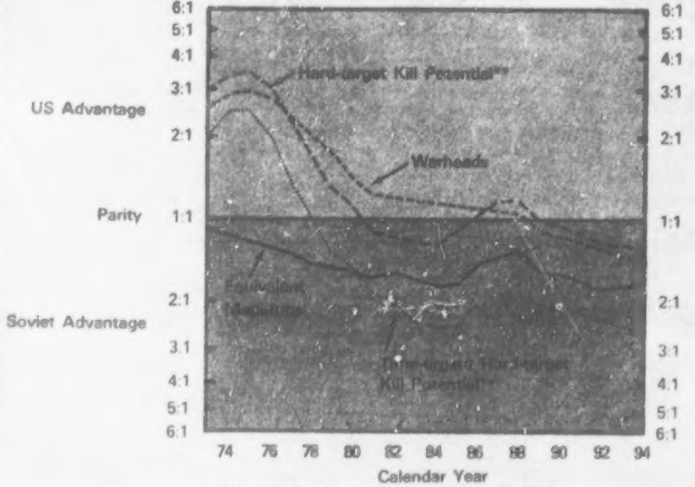


As of 1 January 1985

Chart III-6

Strategic Forces

Preattack Static Ratio Comparison*
(with expanded Soviet capability)



* Total active inventory (includes FB-111 and BACKFIRE)

** Calculations are based on potential against identically hardened targets

As of 1 January 1985 **Chart III-7**

Strategic Offensive Force Effectiveness

Static measures neglect some differences in force quality and employment strategy. These aspects are best captured in a dynamic comparison that examines Soviet improvements in defensive forces, counterforce capabilities, reload and refire capabilities, and wide deployment of strategic offensive systems in multiple basing modes. The Soviets have sought to limit damage to their warfighting capability by hardening ICBM silos to levels well above those of the hardest US silos. The Soviets have also deployed an antiballistic missile (ABM) system around Moscow, prepared hardened underground facilities for their key leadership and civilian work force, and planned for dispersal of conventional forces and urban populations. Static measures reflect none of these factors.

Dynamic analyses reflect the different target objectives and characteristics of each side. Studies show that potential targets in the United States are considerably fewer in number and less dispersed than those in the Soviet Union. Further, targets in the Soviet Union have been hardened to a far greater degree. Additionally, these analyses assume that the ABM Treaty remains in effect, opposing sides employed nuclear weapons only in homeland exchanges, and all forces on both sides received and executed a launch order. Analyses also show that Soviet strategic forces would be considerably more effective than those of the United States because of asymmetries in role and doctrine, and the development by the Soviets of protected and dispersed sites for essential personnel, forces, and installations.

Command and Control

Soviet Command and Control

The Soviets have deployed extensive and modern command and control systems to provide centralized direction over their military commands. The Soviets expect to be able to communicate with their forces during a strategic nuclear exchange and to direct all operations. Toward this end, the Soviets have constructed hardened, deep-underground facilities for their primary military authorities. These facilities are equipped with multiple means of communication. In addition, the Soviets have developed air- and ground-mobile systems that can serve as alternate command posts if primary sites are destroyed. Soviet systems emphasize survivability, redundancy, and flexibility and provide extensive internetting of communications from the Soviet high command to lower echelons.

US Command and Control

The credibility of the US strategic deterrent depends on systems that provide positive control for the effective employment of the TRIAD. US command and control systems require speed, flexibility, reliability, and survivability to assure connectivity before, during, and after a nuclear attack.

Before and during the early stages of an attack, command and control systems must be able to provide timely warning to the NCA and the strategic forces that an attack has been initiated. These systems must not only define the nature of the attack to allow appropriate defensive and damage-limiting actions, but also permit the NCA to direct an appropriate response. Tactical warning and attack assessment (TW/AA) sensors and communications are used to detect and forward hostile attack information to command authorities. Numerous improvements are being made by the introduction of new systems which will reduce communications uncertainties during an attack and provide the NCA more effective warning and assessment for force management. Improvements, such as jam-resistant secure communication equipment, laser communications data links, secure voice conferencing, low to extremely low frequency (ELF) communications, and extremely high frequency (EHF) communications satellites, are being fielded.

The National Military Command System (NMCS) provides the means for the NCA, JCS, and commanders of the unified and specified commands (CINCs) to receive information to support their decisionmaking, thereby enabling them to direct forces in crises and during conventional or nuclear war. The National Emergency Airborne Command Post (NEACP) is the most survivable element of the NMCS. The NEACP is based inland to ensure that it can be launched and survive a surprise attack. The addition of automatic data processing, expanded use of satellite communications, secure-voice capabilities, and conversion of the fleet to the E-4B aircraft are increasing the ability of this system to support the NCA.

E-4B NEACP

Continued development and deployment of the Groundwave Emergency Network and a new communications satellite system, MILSTAR, are required to ensure that NCA decisions reach executing forces during the critical early stages of an attack. The command and control systems of airborne command posts need to be modified to protect against high-altitude nuclear detonation effects. Additionally, an ELF communications system is being developed to improve command and control of SSBNs.

The Nuclear Planning and Execution System will enhance data processing capabilities for the NMCS and CINCs. Deployment of the Nuclear Detonation Detection System on Global Positioning System satellites will significantly improve assessment capabilities.

Strategic Defensive Forces

The Soviet Union has pursued a full range of strategic defensive programs to protect leaders, preserve vital functions of government, and limit damage from retaliation. The US strategic defensive programs have been less comprehensive and have focused primarily on surveillance, warning, and aircraft modernization. US strategic defensive systems would reduce the potential effectiveness of Soviet nuclear attacks by adding uncertainty to the possible outcomes of nuclear conflict and undermining an attacker's confidence in success.

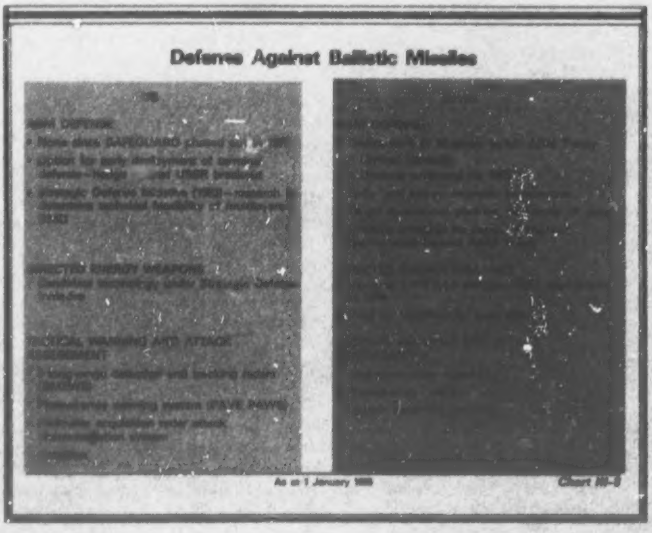
The United States is reexamining strategic defense in order to take a positive step toward more stable deterrence. In the past, US strategic deterrence relied largely upon an assured retaliation capability. Both the Soviet and US strategic forces were relatively secure from a disarming attack. The continued Soviet strategic modernization and buildup have led to a less stable environment. Effective US defenses can increase the uncertainty of the outcome of a Soviet preemptive attack and help strengthen deterrence. New technologies must be evaluated for US strategic defense.

Missile Defense

The Soviets continue to modernize their ABM system around Moscow and have a strong development program which could permit relatively rapid and widespread ABM deployment. In addition, vigorous Soviet directed-energy research and development efforts could lead to a ground-based ballistic missile defense (BMD) capability in the 1990s. To complement their BMD efforts, the Soviets have developed an extensive tactical warning and attack assessment capability based on launch detection satellites and over-the-horizon and phased-array radars.

SOVIET GALOSH ABM

Although the ABM Treaty allows limited defense of one site, the United States abandoned this approach in the 1970s (Chart III-8). US defense systems depend upon effective TW/AA to detect, identify, and track enemy weapon systems before and during an attack. Reliable surveillance systems must provide unambiguous warning of attacking missiles. Effective missile warning requires the sensing of an attack by at least two different methods in order to increase warning confidence and minimize the likelihood of false alarms and possible overreaction. US ground- and space-based systems are designed to provide the necessary warning and confirm the launch of attacking missiles.



Defense Against Ballistic Missiles

US

ABM DEFENSE
- None since SAFEGUARD phased out in [illegible]
- Option for early deployment of terminal defense—hedge [illegible] USSR breakout
- Strategic Defense Initiative (SDI)—research to determine technical feasibility of [illegible] (BMD)

DIRECTED ENERGY WEAPONS
- Conducting technology under Strategic Defense Initiative

TACTICAL WARNING AND ATTACK ASSESSMENT
- 3 long-range detection and tracking radars (BMEWS)
- Phased-array warning system (PAVE PAWS)
- Perimeter acquisition radar attack characterization system
- Satellites

[illegible]

As of 1 January [illegible]

Chart III-8

The current space-based surveillance system relies on sensors aboard satellites, which cover Soviet SLBM and all ICBM launch areas. System survivability is being upgraded. More durable follow-on satellites will replace current ones.

The current ground-based radars, for example, PAVE PAWS, Perimeter Acquisition Radar Attack Characterization System (PARCS), Ballistic Missile Early Warning System (BMEWS), and COBRA DANE, confirm satellite warning of ICBM attacks from the north and SLBM attacks from normal Soviet submarine operating areas. The activation of two southern PAVE PAWS sites in the late 1980s will complete the radar coverage of likely SLBM approach routes. BMEWS currently employs equipment based on obsolescent technology that is increasingly difficult to maintain and support. BMEWS radars are being upgraded with a two-face phased-array system at Thule, Greenland, and a three-face phased-array system at Fylingdales, United Kingdom. These upgrades will improve range resolution, provide a greater ability to count incoming vehicles, and ensure more accurate impact prediction.

PAVE PAWS RADAR

Other systems contribute unique capabilities to monitor Soviet nuclear forces. Strategic airborne reconnaissance aircraft carry a variety of sensors to detect ground and air activities. For ocean surveillance, the coordinated efforts of P-3, E-2C, and S-3 aircraft, and of submarines and surface ships with towed arrays are key to tracking ballistic missile submarines.

Under the SDI, the United States is conducting an intensive research effort focused on advanced defensive technologies capable of defeating ballistic missiles. A number of concepts, involving a wide range of technologies, are being examined. The effort does not represent a departure from the fundamental US support for deterrence.

No single concept of technology has been identified as most appropriate. Initial research indicates that it is feasible to increase stability through employment of a multilayered defense capable of engaging enemy missiles and reentry vehicles in all stages of flight (Chart III-9). The SDI effort is also examining technologies with potential against short-range ballistic missiles, which could extend protection against nuclear and conventional attack to the allies.

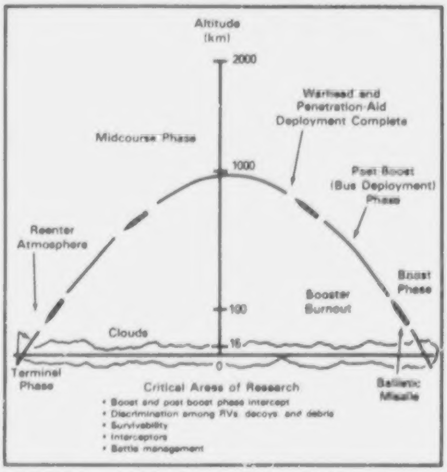
The SDI is addressing the protection of both civilian and military assets. The research seeks to exploit the inevitable technological evolution and is a prudent response to active Soviet research and development activities in ballistic missile defense.

The Soviet Union has already deployed a BMD system, which is permitted under the 1972 ABM Treaty. The Soviets are also engaged in research and development of a rapidly deployable ABM system. This effort raises concern about their potential ability to deploy a nationwide ABM system within the next decade in violation of the ABM Treaty. SDI research of the United States will be consistent with terms of the ABM Treaty. The program also provides a prudent hedge against a possible Soviet breakout from the ABM Treaty, holds the promise of a better way to deter aggression, strengthens stability, and increases US and Allied security.

Air Defense

The Soviets emphasize air defense and continue to upgrade their capabilities. The Soviets have 1,200 interceptors assigned to homeland defense and are developing a long-range intercept capability. Deployment of the FOXHOUND A interceptor continues. This aircraft is the first Soviet fighter-interceptor to have full lookdown-shootdown and multiple-target engagement capabilities. For point defense, the Soviets have deployed strategic surface-to-air missile (SAM) launchers. The Soviets continue to

Phases of a Typical Ballistic Missile


Altitude (km)
2000
1000
100
16
0
Warhead and Penetration-Aid Deployment Complete
Midcourse Phase
Post Boost (Bus Deployment) Phase
Reenter Atmosphere
Boost Phase
Booster Burnout
Clouds
Terminal Phase
Ballistic Missile

Critical Areas of Research

- Boost and post boost phase intercept
- Discrimination among RVs, decoys, and debris
- Survivability
- Interceptors
- Battle management

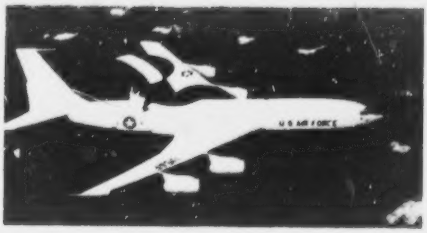
As of 1 January 1985 *Chart III-9*

develop and deploy improved SAM systems. The new SA-10 is estimated to be effective against small, low-altitude targets. The SA-X-12 is a mobile tactical SAM system that could be deployed in the mid-1980s. The SA-5, SA-10, and SA-X-12 may have the potential to intercept some types of US strategic ballistic missiles. For surveillance of their airspace, the Soviets have deployed early-warning aircraft and over 6,000 search and track radars at more than 1,200 sites. The Soviets are also introducing a new airborne warning and control aircraft. Soviet air defenses will continue to pose a major challenge for the US bomber force.

SOVIET FOXBAT AIR DEFENSE INTERCEPTOR

The United States and Canada share continental air defense responsibilities under the provisions of the North American Air Defense Agreement. Both nations assign forces to the North American Aerospace Defense Command (NORAD).

Current US air defenses are composed of TW/AA sensors, search and track radars, Airborne Warning and Control System (AWACS) aircraft, and interceptor aircraft. Deployment of North Warning System (NWS) and over-the-horizon backscatter (OTH-B) radars will improve the detection capability against airbreathing threats. The effectiveness of OTH-B in detecting cruise missiles is promising. OTH-B radars can provide surveillance of attack routes from 500 to

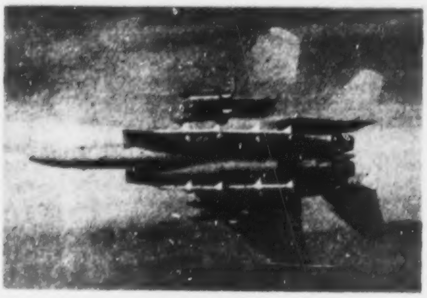


AWACS

1,800 miles. AWACS patrols can provide some coverage until the present Distant Early Warning (DEW) Line radars are replaced by the NWS and OTH-B radars. The NWS searching north and OTH-B radars searching east, west, and south will provide a capability for tactical warning at ranges that allow increased response time against aircraft and cruise missiles, which is of particular concern.

Peacetime surveillance of continental airspace has been strengthened by the integration of selected civilian and military radar sites into the Regional Operations Control Centers that comprise the Joint Surveillance System. The system would provide regional air defense command and control during the initial stages of an attack.

Improvements in the TW/AA sensors and search ~~and track~~ radar systems have been accompanied by interceptor aircraft upgrades. US F-106 and F-4 aircraft are being replaced by more capable F-15 and F-16 aircraft. Additionally, Canada's CF-101 interceptors are being replaced with CF-18 aircraft. These modern aircraft provide a significant addition to the air defense of North America, especially with their lookdown-shootdown capability. This capability will become increasingly important as the Soviets expand their cruise missile inventory. Chart III-10 illustrates the modernization of the US and USSR interceptor aircraft.



AIR DEFENSE F-15

Space Defense

The Soviet Union has the world's only operational antisatellite (ASAT) system. The Soviet ASAT is capable of attacking satellites in near-earth orbits with direct-ascent antiballistic missiles. Vigorous Soviet research and development in ground-based and space-based directed-energy technology has potential ASAT applications.

The United States is continuing to develop ASAT weapon systems to deter Soviet use of low-earth orbiting space weapons and reduce their effectiveness, should deterrence fail. The initial US capability is expected to be provided by the Miniature Air-Launched System, a small missile launched from F-15 aircraft.

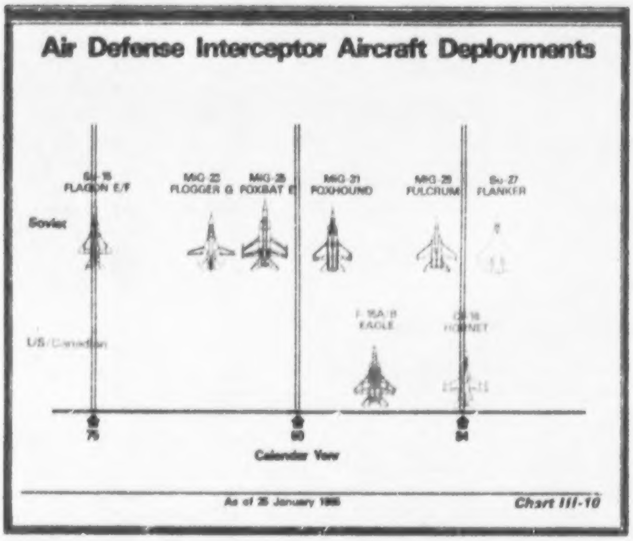
Other Defense Measures

Both the United States and the Soviet Union have given missile silos and essential command and control systems their first priority in programs to harden strategic systems against overpressure from a nuclear detonation. The results of hardening are evident in the characteristics of strategic targets in each nation. The Soviet Union has significantly improved its strategic capability by dispersing critical facilities, hardening structures, and developing mobile systems. For the most part, the United States has not extended hardening to economic or government facilities beyond those involved in strategic intelligence and command and control operations.

The Soviet Union places far more emphasis on civil defense than does the United States. The Soviets view civil defense as an integral part of their strategic posture and invest heavily in the protection of their key leadership, essential work force, critical economic facilities, and general population. Soviet programs include construction of protective relocation facilities, organizational planning, training, and the commitment of manpower to the civil defense structure. US efforts do not provide for adequate support of a dispersed population or protection of war-supporting industry and its labor force.

Strategic Defense Summary

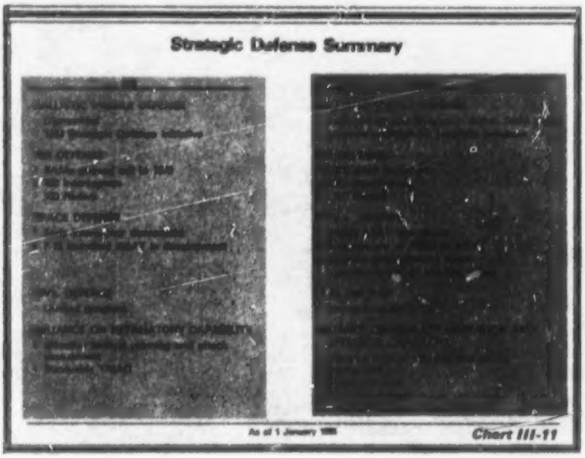
Chart III-11 illustrates the key features of the US and Soviet strategic defense force postures.



Air Defense Interceptor Aircraft Deployments

As of 25 January [illegible]

Chart III-10



Strategic Defense Summary

As of 1 January [illegible]

Chart III-11

NONSTRATEGIC NUCLEAR FORCES

The United States must possess a broad spectrum of nuclear force options to deter aggression and defend its interests should deterrence fail. Strategic forces support many options, but other nuclear forces are also required. Nonstrategic nuclear forces (NSNF) consist of land-based systems for battlefield support and intermediate-range strikes, and sea-based systems for land strike and antiship, antisubmarine, and antiair warfare.

NSNF support conventional forces by providing a major deterrent to conventional, theater nuclear, and chemical attack, and are essential to a strategy of flexible response. NSNF provide a range of employment options that creates uncertainty for potential aggressors concerning US and allied response. Such forces could deny the enemy sanctuaries to mass behind the immediate battle zone and break up the momentum of an offensive.

Although US NSNF are available for use worldwide, the majority of these forces are located in Europe. The primary NSNF threat to US and allied forces is also located in Europe, although SS-20 missiles based in eastern and central USSR and Soviet sea-based nuclear forces pose a growing threat to Asia. The NSNF are structured differently for their missions in Europe and Asia. NATO NSNF are deployed in a relatively confined geographical area and are primarily land-based. US NSNF in the Pacific are geographically dispersed and more dependent on sea-based capabilities. The following assessments of NSNF are provided in a NATO-Warsaw Pact context.

Intermediate-Range Nuclear Forces

Intermediate-range nuclear forces (INF) include land-based missiles and aircraft capable of striking targets beyond the general area of the battlefield, but not capable of intercontinental range.

Longer Range Intermediate-Range Nuclear Forces

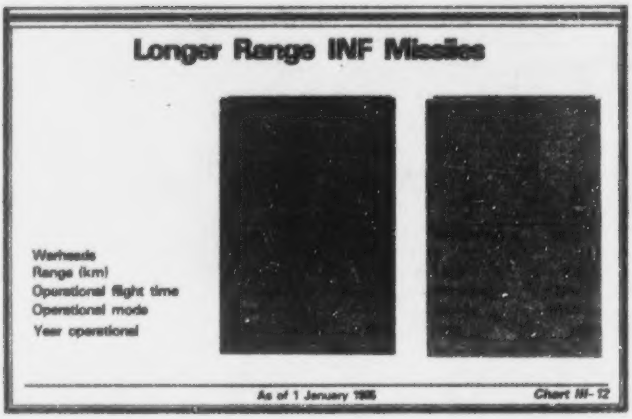
Longer range intermediate-range nuclear force (LRINF) missiles have ranges between 1,800 km and 5,500 km. In late 1983, NATO began implementing its 1979 decision to modernize LRINF with initial deployments of PERSHING II and GLCMs. These actions were undertaken because of Soviet deployments of SS-20 missiles and the unwillingness of the Soviets to agree to INF reductions after two years of negotiation. NATO deployments are scheduled to continue through 1988 at which time there will be 108 PERSHING IIs and 464 GLCMs in Europe unless an arms control agreement reduces LRINF missiles to lower levels.

PERSHING II MISSILE

Full deployment of LRINF missiles will increase NATO's nuclear capability significantly and help offset SS-20 deployments. Both the PERSHING II and GLCM systems have ranges exceeding those of other NATO systems deployed in Europe and incorporate technologies which make them effective against critical targets. The PERSHING II missile provides an additional capability because it can strike time-urgent targets.

GROUND-LAUNCHED CRUISE
MISSILE SYSTEM

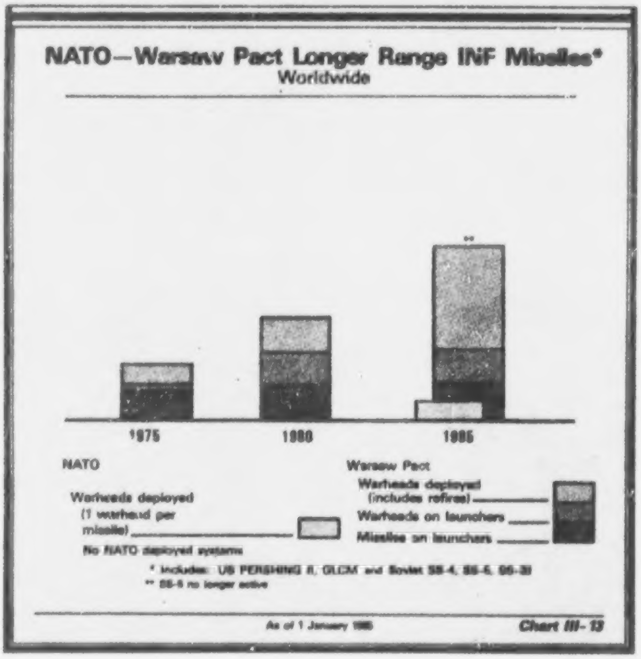
As shown in Chart III-12, the PERSHING II and GLCM do not compensate fully for deployed Soviet LRINF capabilities. Soviet SS-20 systems, with 3 independently targeted warheads per missile, already greatly outnumber the 572 weapons that will be made available by NATO LRINF deployments (Chart III-13). The availability of SS-20 refires and older SS-4s further contributes to the imbalance. In addition, the SS-20 has a much greater range than any NATO



Longer Range INF Missiles

Warheads
Range (km)
Operational flight time
Operational mode
Year operational

As of 1 January 1985 — *Chart III-12*



NATO—Warsaw Pact Longer Range INF Missiles*
Worldwide

NATO

Warheads deployed (1 warhead per missile)

No NATO deployed systems

Warsaw Pact

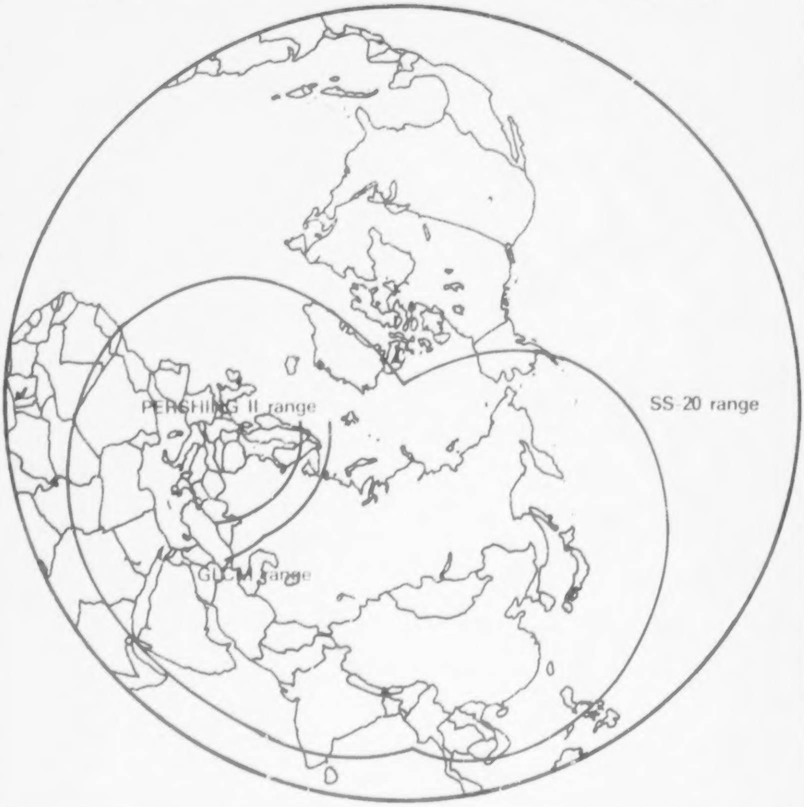
Warheads deployed (includes refires)
Warheads on launchers
Missiles on launchers

* Includes: US PERSHING II, GLCM and Soviet SS-4, SS-5, SS-20
** SS-5 no longer active

As of 1 January 1985 — *Chart III-13*

LRINF system. As shown on Map III-1, the SS-20 can cover the entire European theater, all of East Asia, and other vital areas. The SS-20 can reach most significant targets in Western Europe, even when deployed beyond the NATO LRINF range. Chart III-14 compares NATO and Soviet LRINF capabilities.

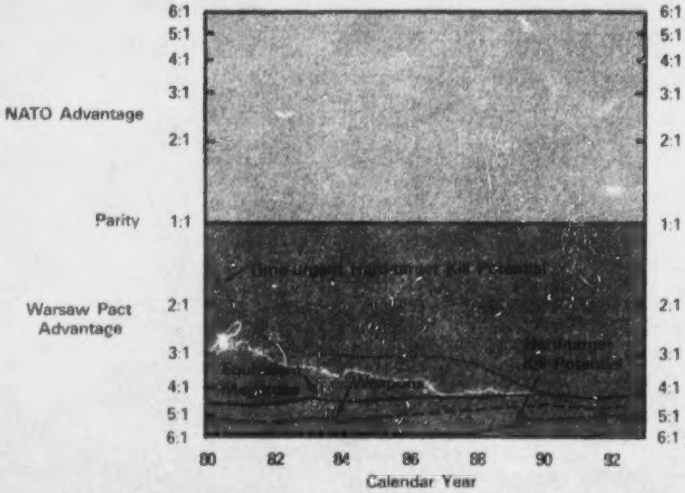
PERSHING II and GLCM Coverage & SS-20 Coverage from Soviet Bases



As of 1 January 1985

Map III-1

Intermediate-range Nuclear Forces*—Europe
(Land-based Missiles and Dual-capable Aircraft)
Preattack Static Ratio Comparison (Missiles on Launcher Only)



* Includes only those weapon systems with ranges greater than 300 km and no refire missiles

As of 1 January 1985 **Chart III-14**

Shorter Range Intermediate-Range Nuclear Forces

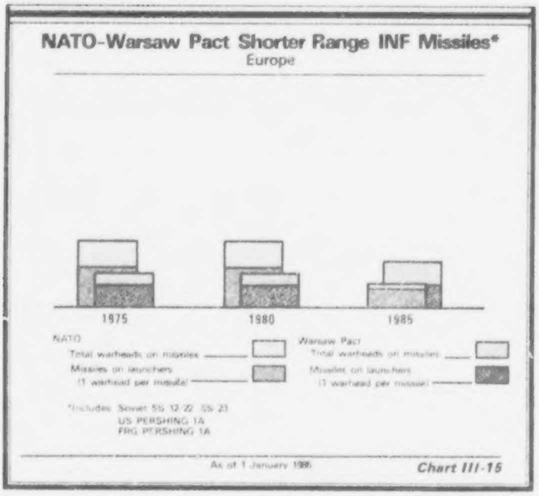
Shorter range intermediate-range nuclear forces (SRINF) have ranges from beyond the immediate battlefield to 1,800 km. Withdrawal of US PERSHING IA missiles from Europe began in 1983 in conjunction with the deployment of the PERSHING II. With this withdrawal, the German PERSHING IA missiles will be the only SRINF remaining in the NATO inventory. This change is reflected in Chart III-15.

The Soviet modernization of SRINF systems continues. Deployment of the SS-23 missile, with its improved accuracy, will significantly increase the number and capability of SRINF systems facing NATO. The number of SRINF missiles available to the Warsaw Pact is expected to grow considerably during the remainder of the decade.

SRINF missiles provide the Soviet Union with an important capability. The forward deployment of SRINF systems will reduce the number of Soviet LRINF systems required to accomplish targeting objectives.

Intermediate-Range Nuclear Forces Aircraft

INF aircraft are those land-based, nuclear-capable aircraft with less than intercontinental range. Dual-capable aircraft (DCA) make up the preponderance of the INF systems capable of delivering nuclear weapons beyond the immediate battlefield. Chart III-16 shows that both the Warsaw Pact and NATO



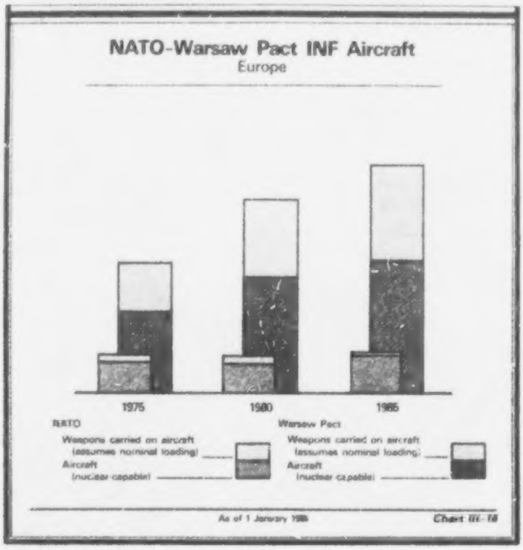
NATO-Warsaw Pact Shorter Range INF Missiles*

Europe

*Includes: Soviet SS 12/22, SS 23
US PERSHING 1A
FRG PERSHING 1A

As of 1 January 1986

Chart III-15



NATO-Warsaw Pact INF Aircraft

Europe

As of 1 January 1986

Chart III-16

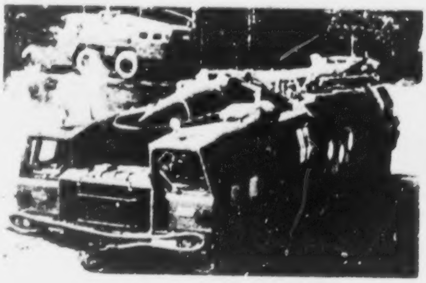
rely heavily on these systems and that the Warsaw Pact holds a considerable numerical advantage. The F-111, TORNADO, and A-6 are currently the only INF aircraft available to NATO which have the ability to penetrate enemy defenses at low altitude, day or night, in any weather. NATO will continue to make qualitative and quantitative improvements in its INF aircraft, such as the F-16 and TORNADO. The addition of the F-15E dual-role fighter to the inventory in the late 1980s will significantly improve NATO's all-weather capability.

Changes to these Soviet systems for the next few years will involve the introduction of newer, more capable systems. As with NATO systems, most Warsaw Pact INF aircraft are limited to SRINF-equivalent ranges. Only the BLINDER and BADGER bombers are capable of longer ranges.

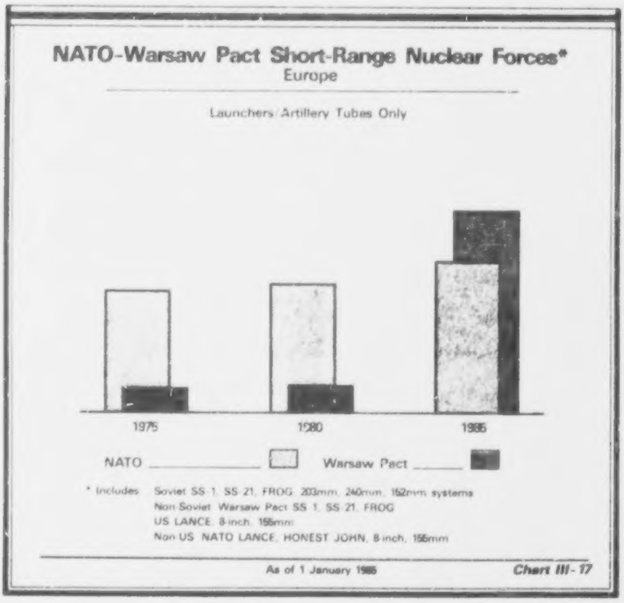
NATO INF aircraft have both a nuclear and conventional role. Because of possible attrition during conventional operations and the fact that not all INF aircraft are committed to the nuclear role, the actual number of DCA available would depend on the nature and sequence of the aggressor's attack.

Short-Range Nuclear Forces

In the past, NATO had a clear advantage over the Warsaw Pact in the number of deployed short-range nuclear force (SNF) missiles, rockets, and artillery capable of striking targets only in the immediate battlefield area (Chart III-17). This advantage was primarily due to the large NATO inventory of dual-capable 155mm howitzers. The Soviets have



SOVIET SS-1 SCUD B



NATO-Warsaw Pact Short-Range Nuclear Forces*
Europe

Launchers/Artillery Tubes Only

* Includes Soviet SS-1, SS-21, FROG, 203mm, 240mm, 152mm systems
Non-Soviet Warsaw Pact SS-1, SS-21, FROG
US LANCE, 8-inch, 155mm
Non-US NATO LANCE, HONEST JOHN, 8-inch, 155mm

As of 1 January 1985

Chart III-17

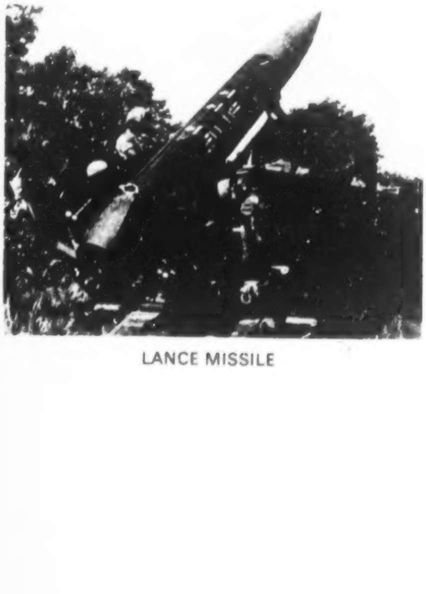
fielded nuclear-capable 152mm guns, 203mm guns, and 240mm self-propelled mortars; also, the older 152mm howitzer is considered to be nuclear-capable. These systems are complemented by a new nuclear missile, the SS-21, which is replacing the FROG 7. The Soviet deployments of these SNF weapons significantly increase their battlefield nuclear capability.

The United States is also engaged in programs to upgrade its SNF systems. This modernization effort is required to replace aging, less reliable warheads and provide weapons that can more effectively counter the Warsaw Pact threat.

Modernized artillery-fired atomic projectiles (AFAP) use improved technology, resulting in increased range, greater accuracy, higher reliability, and improved responsiveness. Only the new 8-inch projectile (W79) is currently being built.

Compared to other SNF, the large number of 155mm howitzers in Europe increases by a factor of five the number of potential SNF delivery systems with which Soviet planners must contend. The W82 modernized 155mm AFAP is in the final stages of development. This weapon is designed to replace the W48, which is nearing the end of its useful life. The W82 offers higher yields, increased ranges, and greatly improved military effectiveness.

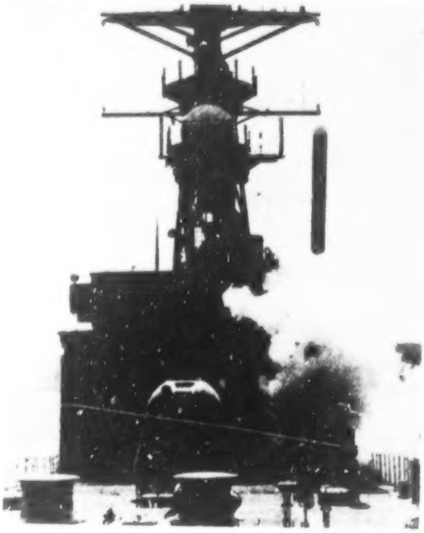
The LANCE, with its 115 km range, remains our longest range SNF system. The LANCE provides the ground commander an important capability to threaten the massed armored formations favored in Soviet doctrine.



LANCE MISSILE

Sea-Based Nuclear Forces

Sea-based nuclear forces consist of strike, antiship air defense, and antisubmarine warfare (ASW) systems. Carrier-based aircraft (A-6, A-7, F/A-18) with nuclear bombs continue to provide the United States with a flexible nuclear land attack and antiship capability. The recently deployed TOMAHAWK TLAM/N significantly enhances the ability to strike land targets by providing increased range over carrier aircraft and allowing dispersal of nuclear strike assets over a large number of naval platforms.



TOMAHAWK MISSILE LAUNCHES

Defensive sea-based nuclear systems include antiair and ASW weapons. A nuclear warhead is under development for the SM-2 surface-to-air missile. Until SM-2(N) is deployed, existing TERRIER antiair missiles will continue to provide a nuclear defense capability for ships. In addition, a nuclear warhead is under development for ASW application.

Other Nuclear Forces

The United Kingdom maintains an SLBM force consisting of 4 SSBNs, each of which carries 16 POLARIS A-3 missiles. The United Kingdom plans to purchase the US TRIDENT system to replace its PO-

LARIS systems in the 1990s. France is not part of the integrated NATO military structure, but maintains an independent nuclear capability.

Command and Control

Soviet Command and Control

For a conflict involving both conventional and nonstrategic nuclear forces, the Soviets have a command and control system that provides centralized control. Theater force communications networks are integral to the national command communications systems. Soviet command and control capabilities are highly survivable, redundant, and flexible. In addition, the Soviets are maintaining vigorous research and development programs to upgrade such systems.

US Command and Control

US NSNF command and control systems must provide positive control and custody over the US nuclear weapons. Today's NSNF command and control systems need improvements. Several communications upgrades have been completed and more are under way to achieve a worldwide system with greater wartime survivability and reliability. These programs are designed to provide for the required connectivity after a nuclear exchange.

CHAPTER IV. THE MILITARY BALANCE: CONVENTIONAL FORCES

INTRODUCTION

Strong US conventional forces are essential to help deter military attacks, particularly against US allies and interests overseas. Events have demonstrated that potential adversaries of the United States are willing to pursue their objectives with military force even in the face of US nuclear capabilities. Deployed conventional forces provide visible evidence of the US commitment to deter and, if necessary, counter military attacks against US interests at all levels of conflict. Should deterrence fail, conventional forces would be employed to respond rapidly to enemy attacks, limit the scope of conflicts, and terminate hostilities on terms favorable to the United States and its allies. Modern, well balanced, and mobile conventional forces increase the options available to the NCA during regional crises.

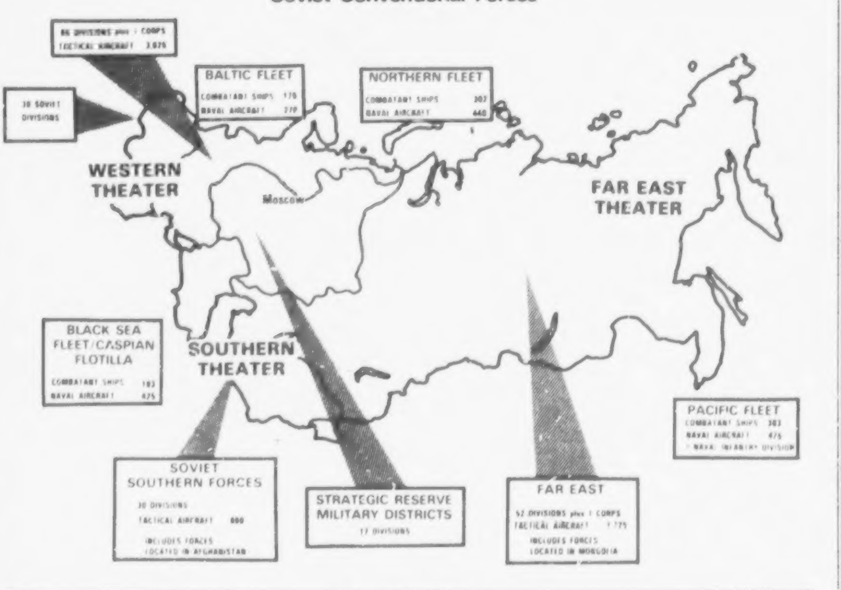
This chapter provides an overview of conventional forces, assesses selected regional military balances, highlights conventional force programs essential to implementation of US military strategy, and discusses considerations for employing and supporting the forces.

GLOBAL OVERVIEW

Soviet Posture

The Soviets maintain the world's largest active armed forces. Soviet forces deployed in Eastern Europe, together with other Warsaw Pact forces, constitute the principal conventional military threat to the Western allies. Major air, land, and naval forces also face Southwest Asia, China, and the Northwest Pacific (Map IV-1). In addition, the Soviets maintain a

Soviet Conventional Forces


86 DIVISIONS plus 1 CORPS
TACTICAL AIRCRAFT 3,075
30 SOVIET DIVISIONS
BALTIC FLEET
COMBATANT SHIPS 170
NAVAL AIRCRAFT 270
NORTHERN FLEET
COMBATANT SHIPS 307
NAVAL AIRCRAFT 440
WESTERN THEATER
Moscow
FAR EAST THEATER
BLACK SEA FLEET/CASPIAN FLOTILLA
COMBATANT SHIPS 183
NAVAL AIRCRAFT 475
SOUTHERN THEATER
PACIFIC FLEET
COMBATANT SHIPS 303
NAVAL AIRCRAFT 475
1 NAVAL INFANTRY DIVISION
SOVIET SOUTHERN FORCES
30 DIVISIONS
TACTICAL AIRCRAFT 800
INCLUDES FORCES LOCATED IN AFGHANISTAN
STRATEGIC RESERVE MILITARY DISTRICTS
17 DIVISIONS
FAR EAST
52 DIVISIONS plus 1 CORPS
TACTICAL AIRCRAFT 1,725
INCLUDES FORCES LOCATED IN MONGOLIA

As of 1 January 1985

MAP IV-1

significant military presence in Africa, Southeast Asia, and Cuba and provide a substantial fighting force in Afghanistan. Further, they provide military aid on an extensive scale and use surrogate forces to project their military power.

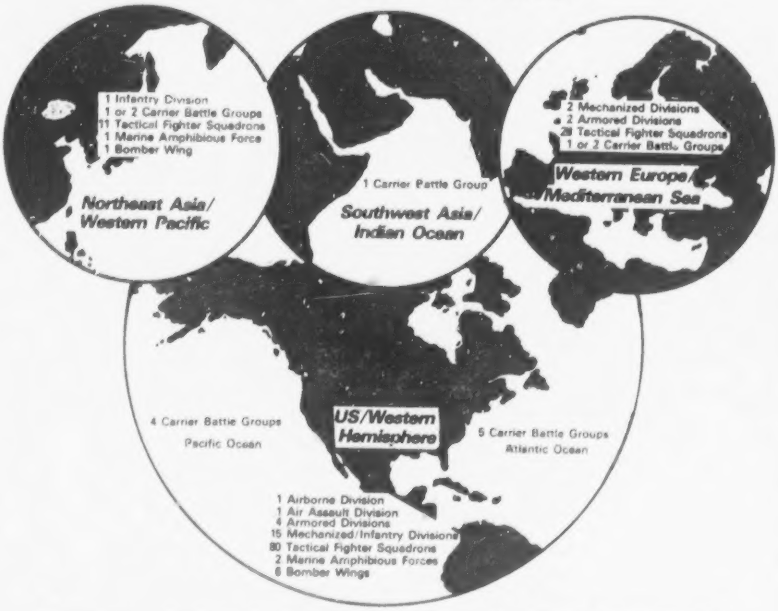
US Posture

To meet worldwide responsibilities, the US military strategy requires forward-deployed forces—supported by allies where possible—that are backed by a rapidly deployable reserve. Map IV-2 shows where US ground, air, and naval forces are currently deployed. Most of the remaining US active component and virtually all reserve component forces remain in the continental United States (CONUS) as a central reserve. These latter forces provide the flexibility to shift US conventional capabilities as contingencies require.

The largest forward-deployed US contingent is in Europe, where NATO faces forces of the Warsaw Pact. A large, dispersed force of US ground, air, and naval units is also deployed in the Western Pacific. In addition, air and naval forces are deployed in the Indian Ocean area to protect regional sea lines of communication (SLOCs), and a limited presence is maintained in Panama to support US interests in Latin America.

The effectiveness of the US strategy depends not only on a system of forward-deployed forces but also on close cooperation with regional allies. In addition to their own military forces, these allies provide basing, staging, and overflight rights, facility arrangements, and support personnel to assist US forces.

US Conventional Forces


1 Infantry Division
1 or 2 Carrier Battle Groups
11 Tactical Fighter Squadrons
1 Marine Amphibious Force
1 Bomber Wing
Northeast Asia/
Western Pacific
1 Carrier Battle Group
Southwest Asia/
Indian Ocean
2 Mechanized Divisions
2 Armored Divisions
28 Tactical Fighter Squadrons
1 or 2 Carrier Battle Groups
Western Europe/
Mediterranean Sea
4 Carrier Battle Groups
Pacific Ocean
US/Western
Hemisphere
5 Carrier Battle Groups
Atlantic Ocean
1 Airborne Division
1 Air Assault Division
4 Armored Divisions
15 Mechanized/Infantry Divisions
80 Tactical Fighter Squadrons
2 Marine Amphibious Forces
6 Bomber Wings

As of 1 January 1985

Map IV-2

REGIONAL BALANCES

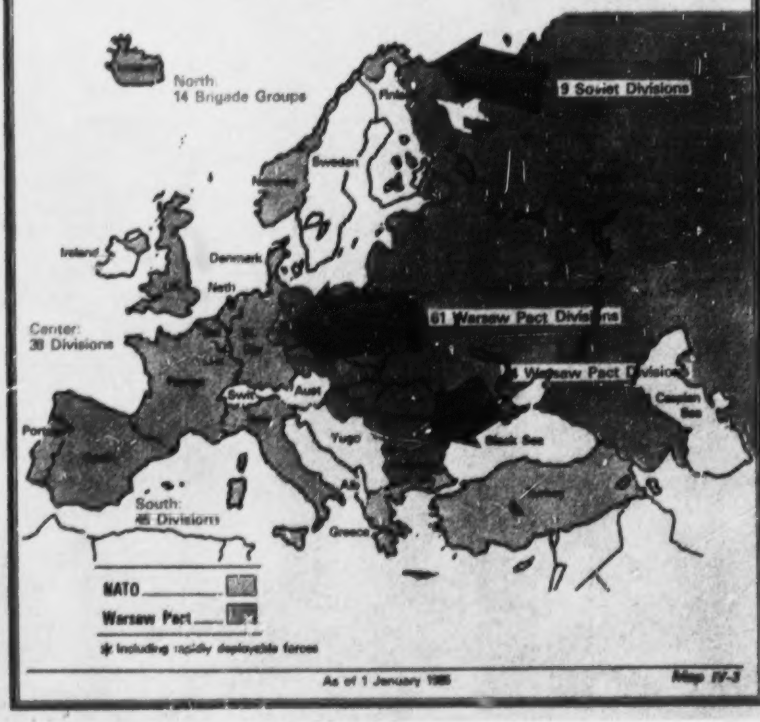
NATO and Western Europe

Warsaw Pact conventional forces continue to pose a major threat to NATO. These forces are being modernized at a pace that threatens NATO's long-standing advantage in quality. The United States and its NATO Allies have made significant improvements in their conventional capabilities, but strong and sustained efforts are still required to meet Alliance force goals.

The Balance in Europe

The Warsaw Pact's military strength is far in excess of that required to defend its territory. The Warsaw Pact's conventional forces are organized, equipped, and trained to conduct offensive operations, and its doctrine and exercises continue to emphasize surprise and large-scale penetration of NATO territory. The major forces facing NATO are depicted on Map IV-3, with axes showing where they would probably concentrate their attacks. The Warsaw Pact could be reinforced with larger numbers and in a shorter

Western Europe, NATO, and the Warsaw Pact*


North:
14 Brigade Groups
9 Soviet Divisions
Finland
Sweden
Norway
Ireland
Denmark
Neth
Center:
38 Divisions
61 Warsaw Pact Divisions
Warsaw Pact Divisions
Caspian Sea
Switz
Aust
Portugal
Yugo
Black Sea
Alb
South:
45 Divisions
Greece
NATO
Warsaw Pact

* Including rapidly deployable forces

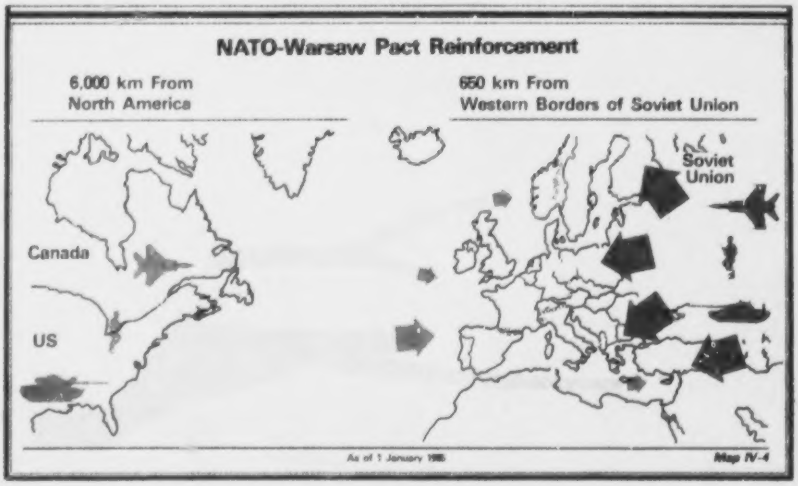
As of 1 January 1985

Map IV-3

time than NATO, particularly if there were little tactical warning. Map IV-4 illustrates this Warsaw Pact advantage.

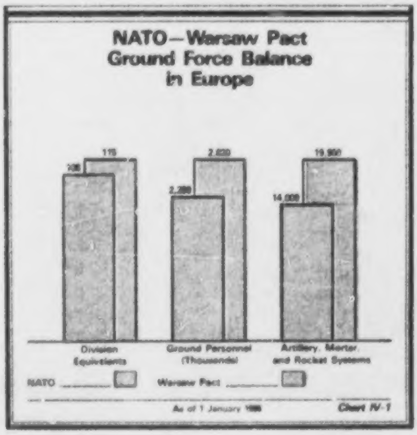
Comparisons of NATO and Warsaw Pact forces in Europe are displayed in Charts IV-1 through IV-4. The NATO data include French and Spanish forces which, although not part of the integrated military structure of the Alliance, represent a significant contribution to the defense of Europe. Only US and Warsaw Pact forces designated for the European theater are included.

Trends in ground forces continue to favor the Warsaw Pact. The Warsaw Pact advantage in tanks continues at more than 2 to 1 and its advantage in artillery, mortars, and rocket systems is more than that ratio. The Warsaw Pact maintains large numbers of


NATO-Warsaw Pact Reinforcement

As of 1 January 1985

Map IV-4

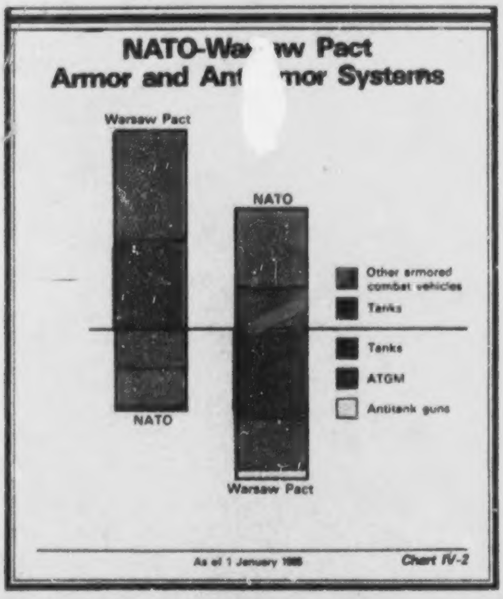

NATO—Warsaw Pact Ground Force Balance in Europe

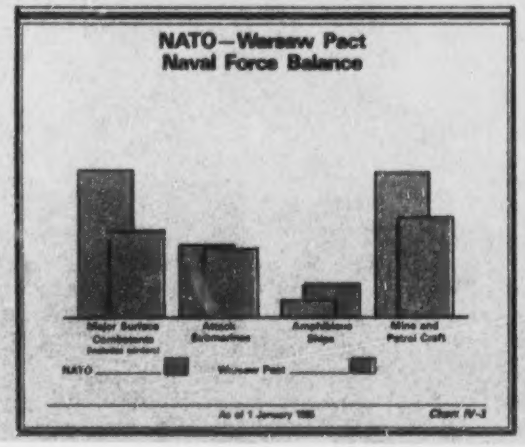
As of 1 January 1985

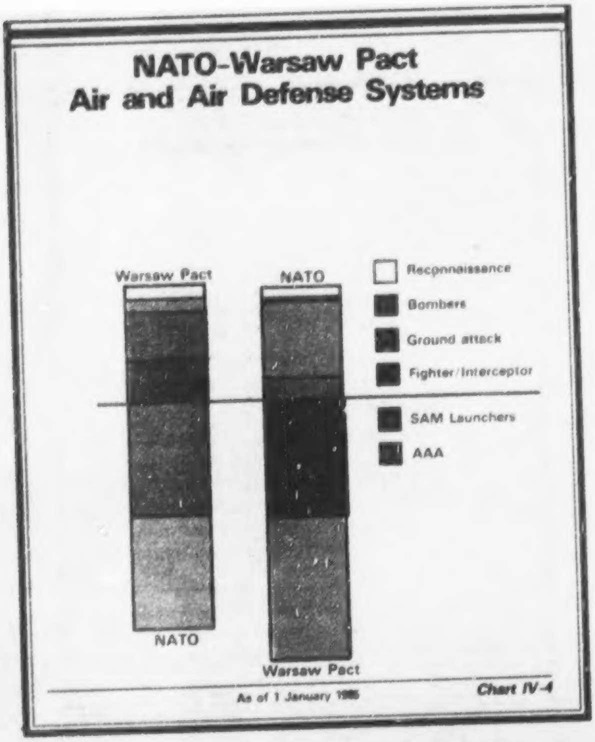
Chart IV-1

air defense systems in Europe, and the ratio of these systems to NATO tactical air forces is increasing.

NATO continues to have an advantage over the Warsaw Pact in numbers of tactical air-to-ground sys-







NATO-Warsaw Pact Air and Air Defense Systems

As of 1 January 1985

Chart IV-4

tems, but still faces a significant numerical disadvantage in air-to-air fighters. The qualitative advantage of NATO's tactical air weapon systems helps offset imbalances in total numbers of aircraft. Aircraft survivability remains a major NATO concern. The Warsaw Pact has many more hardened shelters for its aircraft than does NATO. Actions are under way within the Alliance to expedite its aircraft shelter program.

Modernization programs have allowed NATO naval forces to maintain their overall advantage over the Warsaw Pact; nevertheless, Soviet naval forces remain capable of threatening US and allied forces operating in the maritime approaches to Europe.

SOVIET T-80 TANK

SOVIET FENCER FIGHTER/BOMBER

Analysis of Forces in Europe

The foregoing static comparisons offer some insight into relative NATO and Warsaw Pact capabilities. Dynamic wargaming analyses provide another dimension for evaluating NATO's capabilities to defend against a Warsaw Pact attack.

Dynamic analyses using 1985 capabilities and 1989 projections show positive trends resulting from NATO modernization and other force improvements. The results indicate that programmed increases in airlift, sealift, and pre-positioned materiel in forward areas significantly improve US ground force capabilities and the ability of NATO to contain a Warsaw Pact attack. The military success of the Alliance will continue to depend on a timely decision to mobilize and deploy forces, the time available for mobilization, the en route survivability of reinforcements, and the sufficiency of munitions and other supplies.

Middle East and Southwest Asia

The security of the Middle East and Southwest Asia is important to the economic health of the Free World and, consequently, to the security of the United States. Regional stability, Free World access to oil, and the limitation of Soviet influence remain important US objectives. Map IV-5 identifies current areas of concern.

Regional Stability

Threats to stability and the free flow of oil within this region are numerous and complex. Local disputes have drawn many regional factions into armed conflict, and terrorist actions remain a significant challenge. In the Persian Gulf area, the Iran-Iraq war continues. In Afghanistan, the Soviets maintain a strong, apparently permanent, military presence with which they exert pressure on other nations in the region.

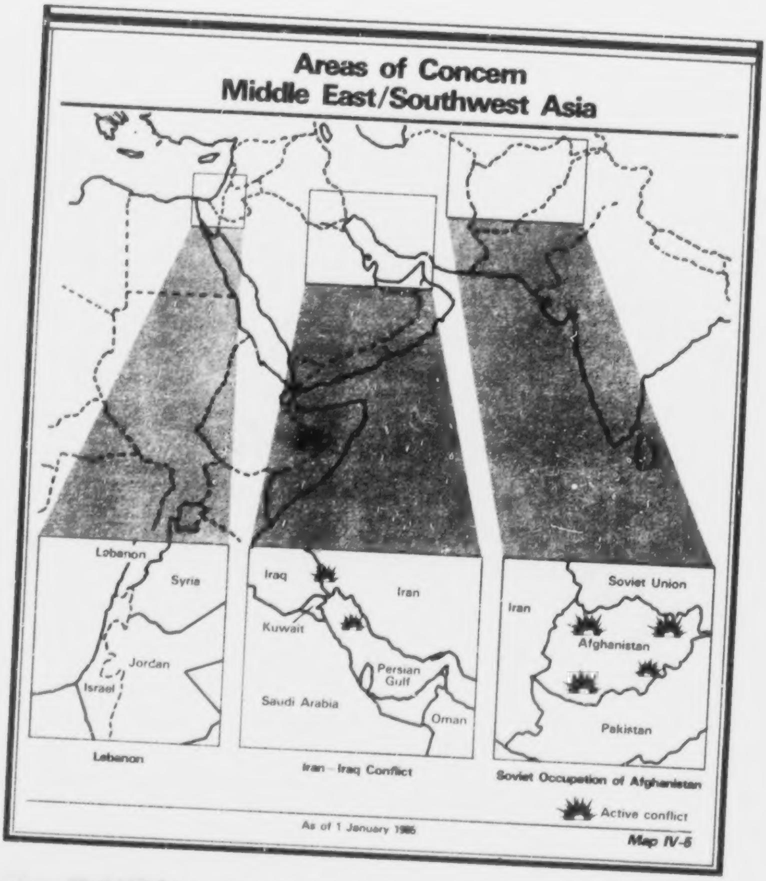
Soviet Activities

The Soviet Union has undertaken significant military activities in the region. Major Soviet forces continue to conduct military operations in Afghanistan. The Soviets have large-scale military aid programs under way in the region and maintain a continuous presence through access to ports and basing facilities, and deployment of over 8,000 advisors. In addition, the Soviets deploy a naval squadron in the region on a permanent basis.

SOVIET FORCES IN AFGHANISTAN

US Role

The United States participates in a number of programs to promote peace and stability in the region. Military assistance is provided to friendly nations to build up their capabilities to protect themselves and to help deter intraregional conflict. In the Middle East, the United States and other nations continue to contribute to regional stability by supporting multinational peacekeeping efforts. The United States continues to maintain naval forces in the Persian Gulf and Arabian Sea, and US ground and air forces periodically conduct exercises with nations of the region. US allies, such as France and the United Kingdom, also provide security assistance and a limited military presence. The Commander in Chief, US Central Command (USCENTCOM), is responsible for coor-

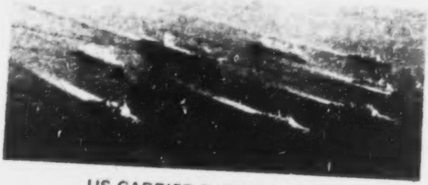


Areas of Concern
Middle East/Southwest Asia

Lebanon
Syria
Jordan
Israel
Lebanon
Iraq
Iran
Kuwait
Persian Gulf
Saudi Arabia
Oman
Iran – Iraq Conflict
Iran
Soviet Union
Afghanistan
Pakistan
Soviet Occupation of Afghanistan
Active conflict

As of 1 January 1986

Map IV-5



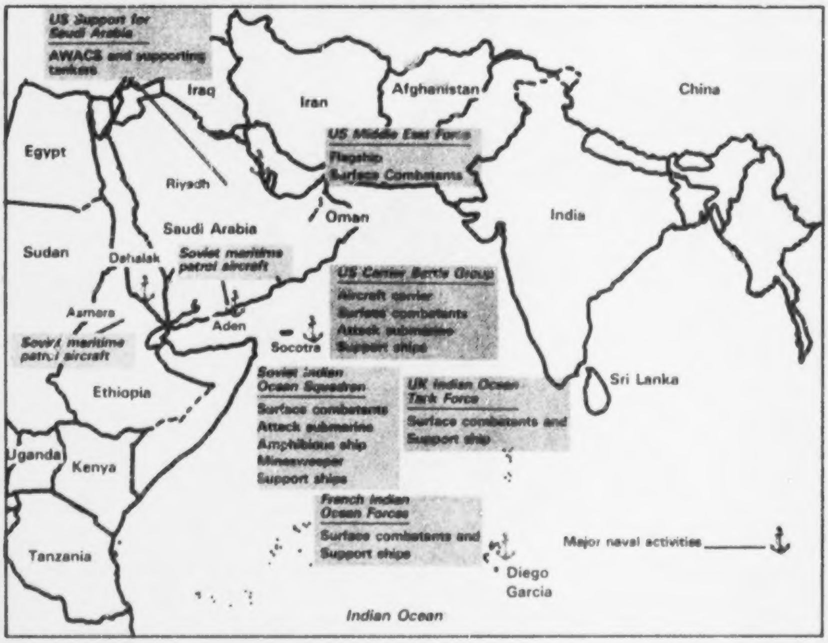
US CARRIER BATTLE GROUP
IN THE ARABIAN SEA

dinating all US military activities in the Southwest Asia region. A forward headquarters element of US-CENTCOM now operates from a US Navy ship in the Persian Gulf area. Map IV-6 shows selected forces in the Middle East-Southwest Asia region.

Pacific

The Pacific is an area of increasing importance to the United States. US security interests in the Asian-Pacific region include the strengthening of collective defense with allies, promotion of regional stability,

Allied—Soviet Presence in Southwest Asia


US Support for Saudi Arabia
AWACS and supporting tankers
Iraq
Iran
Afghanistan
China
Egypt
US Middle East Force
Flagship
Surface Combatants
Riyadh
Oman
India
Saudi Arabia
Sudan
Dahalak
Soviet maritime patrol aircraft
US Carrier Battle Group
Aircraft carrier
Surface combatants
Attack submarine
Support ships
Asmara
Aden
Socotra
Soviet maritime patrol aircraft
Soviet Indian Ocean Squadron
Surface combatants
Attack submarine
Amphibious ship
Minesweeper
Support ships
UK Indian Ocean Task Force
Surface combatants and Support ship
Sri Lanka
Ethiopia
Uganda
Kenya
French Indian Ocean Forces
Surface combatants and Support ships
Major naval activities
Tanzania
Diego Garcia
Indian Ocean

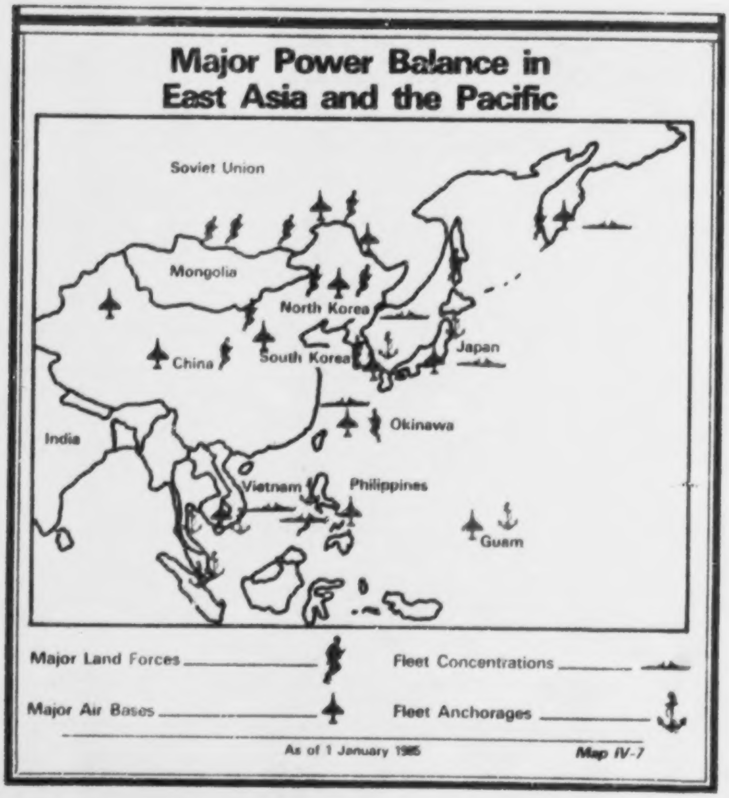
As of 1 January 1985

Map IV-6

maintenance of strong economic ties, and free access to and within the area.

The Balance in the Pacific

The increasing ability of the Soviet Union to project military forces into the Pacific region poses a significant threat to US and allied interests. Map IV-7 shows the disposition of selected military forces in the region. Strong Soviet land forces remain on the Sino-Soviet border, and a large Soviet naval force is available for employment throughout the Pacific. The continued improvement of Soviet forces and the basing of missiles in the Far East Military District increase the threat to Japan and other Northeast Asian nations. Extensive Soviet use of facilities in Vietnam has improved the Soviet capability to interdict Pacific and Indian Ocean SLOCs. North Korean Armed Forces continue to prepare for a military reunification of the Korean Peninsula should circumstances prove favorable. North Korea, supported by the Soviets, continues to modernize its Armed Forces, particularly its armor and mechanized elements. Vietnam has the largest armed forces in Southeast Asia and remains the primary destabilizing influence in that region. Soviet economic and military support has allowed Vietnam to improve its military capabilities. Over 140,000 Vietnamese troops currently occupy Kampuchea, threatening the security of Thai-

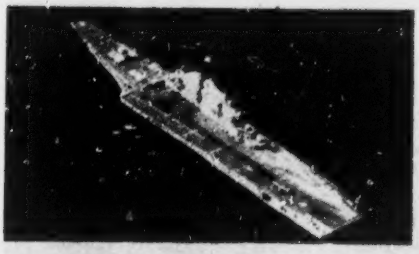


Major Power Balance in East Asia and the Pacific

Soviet Union
Mongolia
North Korea
China
South Korea
Japan
Okinawa
India
Vietnam
Philippines
Guam
Major Land Forces
Major Air Bases
Fleet Concentrations
Fleet Anchorages

As of 1 January 1985

Map IV-7



SOVIET KIEV-CLASS CARRIER

land and creating the potential for a conflict of wider implications.

US, Allied, and Friendly Nations' Capabilities

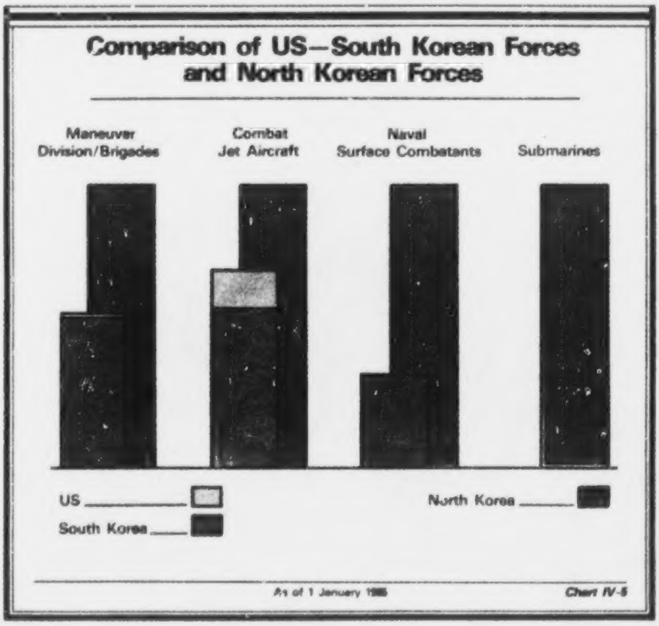
There is a common interest among the United States and its Asian-Pacific allies and friends to promote peace and stability in the region. Because of the growing threat, close defense cooperation and collective security arrangements are essential. The United States has bilateral security agreements with Japan, the Republic of Korea (ROK), Thailand, and the Philippines, and multilateral defense agreements with Australia and New Zealand.

The Australia, New Zealand, United States (ANZUS) organization continues to provide a framework for allied cooperation in the Western and Southern Pacific. The ANZUS Treaty, which is an important part of the interlocking system of Western alliances, strengthens the credibility and deterrent value of the US military presence in the region.

The well-trained ROK forces are becoming increasingly self-sufficient in their capability to defend against aggression from the north, but South Korea still depends upon US support to deter or counter an attack. The United States continues to deploy an Army division and combat air forces within the country, and US naval units in the Western Pacific can respond quickly if needed. Chart IV-5 compares the major forces on the Korean Peninsula. The ROK provides extensive support to forward-based US units and the forces of the two countries are integrated into a single command structure, the Combined Forces Command. Combined US-ROK military training is conducted through both day-to-day activities and annual exercises. Major exercises, such as TEAM SPIRIT, demonstrate allied cooperation and US reinforcement potential.

Japan remains a cornerstone of regional security by virtue of its strategic location, economic strength, and self-defense capability. The Japan Self-Defense Forces are well-equipped and well-trained, although they currently lack the logistic support capability necessary for sustained combat operations. Japanese defense budgets are slowly increasing in recognition of growing threats. US bases in Japan play a vital role in complementing Japan's defenses and providing operational and logistic bases for US regional security efforts.

A nonhostile, nonaligned People's Republic of China (PRC) represents an important counterbalance to Soviet influence in East Asia. The size of the Chinese military force requires both the Soviet Union and Vietnam to allocate resources for possible China contingencies. The PRC is seeking to improve defensive



As of 1 January 1985

Chart IV-5

capabilities it considers critical. US-PRC military cooperation, while limited, should contribute to regional stability.

The United States maintains a close and longstanding bilateral defense relationship with the Philippines and has strategically important air and naval bases there. Political and economic instability and active insurgencies continue to impact adversely on Philippine security and pose complex challenges for the Philippine Armed Forces.

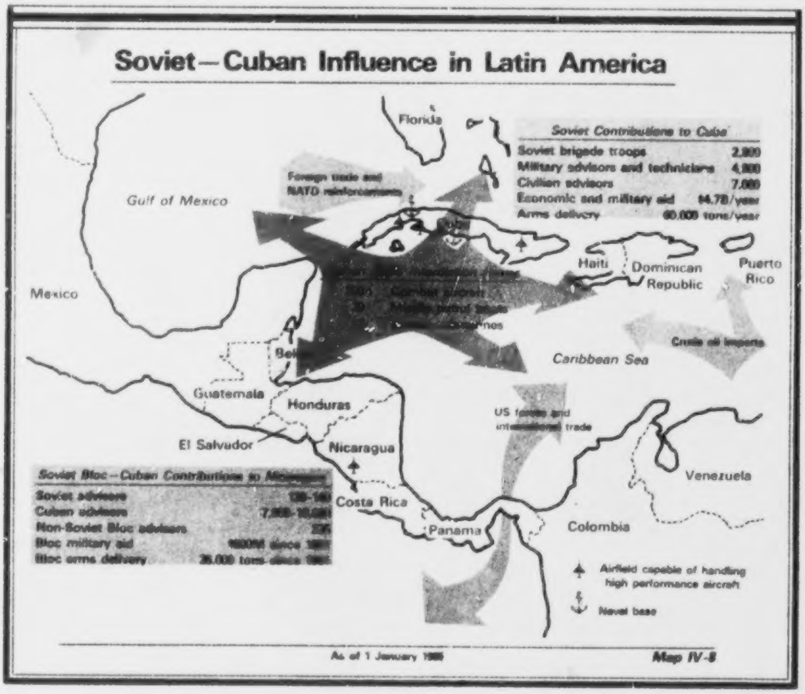
Latin America

Latin America, particularly the Caribbean Basin and Panama Canal, is a vital security concern of the United States. Over 50 percent of US trade and many strategic materials transit Caribbean waters. Substantial NATO reinforcements and materiel would use these SLOCs in support of a conflict in Europe. US access to oil in the region is important in peacetime and would be vital in wartime. US and allied interests continue to be threatened by insurgencies in the region and growing Soviet and Cuban efforts to exploit instability there.

The Balance in Latin America

The Soviet Union provides Cuba extensive financial support and has a combat brigade, advisors, and technicians there. The Soviets also provide military aid throughout the region, either directly or by using Cuba or East European nations as conduits.

Cuba continues to have the largest army in the region and is growing steadily in air and naval strength. Bolstered by Soviet aid, Cuba supports a number of insurgent movements by providing training, advisors and technicians, and substantial amounts of military equipment. Cuba's military strength and aggressive policies would provide a direct threat to US SLOCs in a global conflict, as shown in Map IV-8.


Soviet—Cuban Influence in Latin America
Florida
Gulf of Mexico
Mexico
Foreign trade and NATO reinforcements
Soviet Contributions to Cuba
Soviet brigade troops 2,800
Military advisors and technicians 4,800
Civilian advisors 7,000
Economic and military aid $4.7B/year
Arms delivery 60,000 tons/year
Combat aircraft
Missile patrol boats
Submarines
Haiti
Dominican Republic
Puerto Rico
Crude oil imports
Caribbean Sea
Belize
Guatemala
Honduras
El Salvador
Nicaragua
US forces and international trade
Venezuela
Costa Rica
Panama
Colombia
Soviet Bloc—Cuban Contributions to Nicaragua
Soviet advisors
Cuban advisors
Non-Soviet Bloc advisors
Bloc military aid
Bloc arms delivery
Airfield capable of handling high performance aircraft
Naval base

As of 1 January 1985

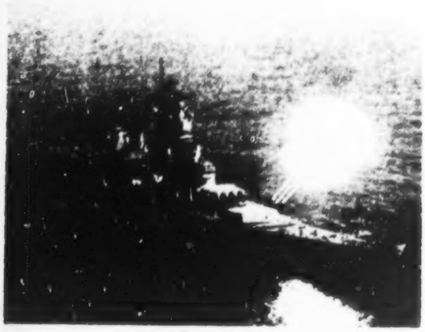
Map IV-8

As Cuba draws strength from the Soviet Union, Nicaragua builds its Armed Forces with assistance from both. Sandinista forces, which have expanded more than eightfold in size in the last 5 years, are now the predominant military power in Central America. Nicaragua's support of external insurgency remains a threat to regional stability.

The United States has a number of programs under way to promote peace and stability in the region. Military assistance is provided to help friendly nations defend against externally supported aggression. In addition, exercises are conducted with friendly armed forces of the region to improve combined capabilities for defense. The forward deployment of US forces in Panama and periodic force deployments emphasize the US commitment to the region.

Maritime Balance

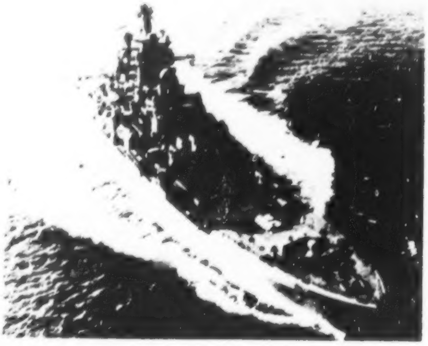
The ability to deploy and reinforce US forces in support of overseas interests and ensure the uninterrupted flow of strategic materials is an essential element of US military power. For these reasons, the US Navy maintains forces capable of seeking out and destroying enemy naval forces, maintaining local air and sea control, projecting forces ashore, supporting ground forces, and transporting forces and supplies. The maritime balance, therefore, must be viewed from a global perspective.



BATTLESHIP IOWA

The Soviet Navy continues to evolve into a balanced force capable of performing sea control missions in waters contiguous to the Soviet Union and open-ocean sea denial operations. By the early 1990s, the Soviets may extend sea denial operations and pose a threat to key SLOCs. The open-ocean effectiveness of Soviet naval forces will continue to be affected by geographic constraints, however. The four Soviet fleets—Northern, Baltic, Black Sea, and Pacific—are widely separated and must traverse considerable distances or transit choke points to reach the open ocean.

Charts IV-6 to IV-9 compare selected US and Soviet naval trends. The Soviets are introducing nuclear-powered warships with greater firepower and endurance into their surface fleet. The introduction of a conventional takeoff and landing carrier in the early 1990s will significantly improve their capability for open-ocean operations. Soviet cruisers and guided-missile destroyers joining the fleet have advanced antiship, antisubmarine, and antiair weapon systems. The expansion and modernization of the general-purpose submarine force include the addition of new classes of nuclear-powered attack submarines (SSNs) and the fitting out of SSNs with advanced antiship and cruise missiles. Improved Soviet Naval Aviation (SNA) land-based bombers pose an increasing threat to US and allied surface ships operating without carrier-based tactical air support.



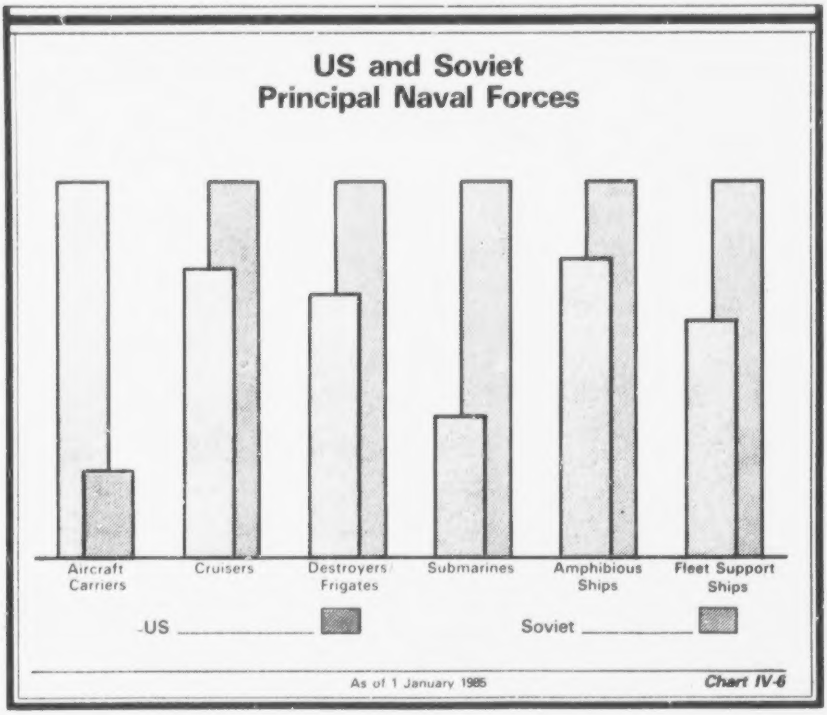
SOVIET KIROV-CLASS CRUISER

The US Navy still possesses a significant advantage over the Soviet Navy in open-ocean antisurface warfare when operating under the umbrella of carrier-based tactical air support. Air Force B-52 aircraft, with the capability to deliver mines and launch

SOVIET BACKFIRE WITH AS-4
AIR-TO-SURFACE MISSILE

HARPOON missiles, can now provide added support against enemy surface targets. US ASW forces, including surface combatants, attack submarines, and land-based aircraft, serve as counters to the Soviet submarine-launched antiship and cruise missile threats. In response to the SNA threat, the US Navy employs a layered antiair warfare (AAW) defense that includes carrier-based interceptor aircraft, area and point defense missile systems, and close-in weapon systems.

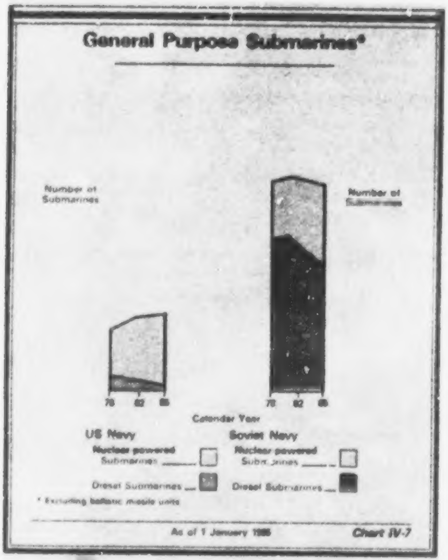
US naval capabilities will continue to outpace the Soviets. The US Navy will maintain its open-ocean superiority and continue to improve its capability to operate in high-threat areas while performing missions in support of allies and forces ashore



**US and Soviet
Principal Naval Forces**

As of 1 January 1985

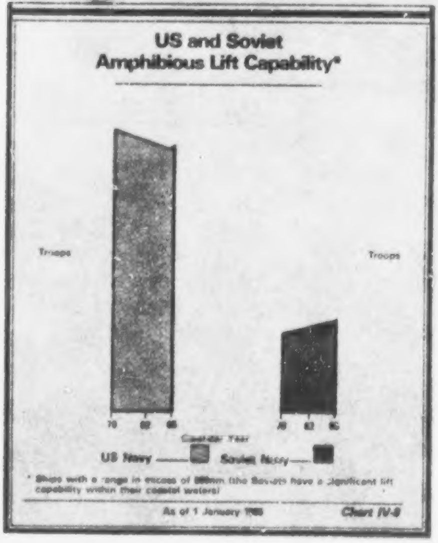
Chart IV-6


General Purpose Submarines*

* Excluding ballistic missile units

As of 1 January 1985

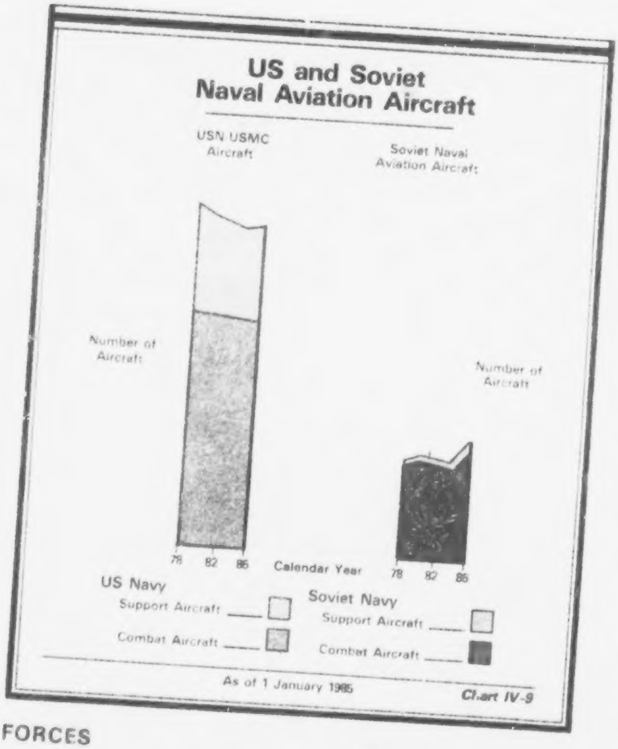
Chart IV-7


US and Soviet Amphibious Lift Capability*

* Ships with a range in excess of [illegible]nm (the Soviets have a significant lift capability within their coastal waters)

As of 1 January 1985

Chart IV-8



As of 1 January 1985 *Chart IV-9*

COMPONENT FORCES

Ground Forces

The Army continues to implement interrelated programs designed to improve its force structure, modernize its capabilities, and enhance readiness. These efforts are having a positive impact on Army capabilities and will provide a wider range of options for dealing with threats across the conflict spectrum.

Efforts are under way to provide a more flexible and capable Army structure. Heavy divisions (armored and mechanized infantry) in both the Active and Reserve components are being reconfigured as smaller divisions to facilitate deployment. These divisions are being modernized through continued fielding of the ABRAMS tank, BRADLEY fighting vehicles, and other advanced systems. These improvements, together with the increased availability

BRADLEY FIGHTING VEHICLE

at corps level of aviation, military intelligence, air defense, and artillery assets, will provide the corps commander greater flexibility to influence tactical operations.

Light forces are also changing. Two infantry divisions are being converted to a new light infantry design. Additionally, two new Active component light infantry divisions and one Army National Guard light infantry division will be formed. An infantry division will be created to perform the Alaskan defense mission. This unit will have two Active component brigades in Alaska and one Reserve component brigade in CONUS. Corps capabilities will be increased to support light force operations. Steps are also being taken to improve the mobility, firepower, and survivability of light forces through advances in technology and innovative tactics. Major elements of the Army modernization program are outlined in Chart IV-10.

The Soviets continue to increase the quality of their ground forces. Soviet main battle tanks are being upgraded. These tanks have improved armor, better fire control equipment, and increased mobility. Two of the tanks can fire an antitank guided missile (ATGM) through the main gun, which provides a greatly improved capability to attack at longer ranges. The Soviets continue to outproduce the United States in tanks at a rate of nearly 4 to 1. The US ABRAMS tank is significantly improving the quality of deployed Army forces. The conversion of US units to the ABRAMS is proceeding well, and plans are under way to produce this tank with a 120mm gun.

The Soviets continue to maintain a 2 to 1 numerical advantage in deployed ATGMs. The Soviet introduction of improved laminated armor has decreased the vulnerability of their vehicles to the current family of US ATGMs. As a result, intensive efforts are under way to improve US ATGM armor-piercing capabilities. The United States retains its advantage in night vision capabilities and armor-piercing technology, but the Soviets will continue to have more systems deployed.

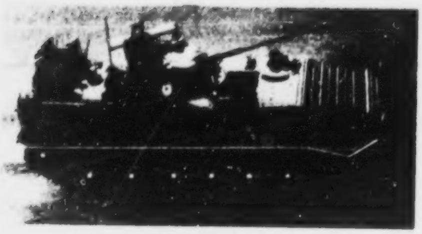
The Soviets are fielding amphibious armored infantry combat vehicles (BMPs) in large numbers. The

Ground Force Systems Modernization

System	*Description*	*Status*
ABRAMS Tank	Main battle tank	In production, operational (2,353 tanks accepted)
M60A3 Tank	Main battle tank product improvement program	In production, operational (3,309 tanks accepted)
BRADLEY Fighting Vehicles	Infantry and cavalry fighting vehicles	In production, operational (1,396 vehicles accepted)
UH-60 BLACKHAWK	Utility helicopter	In production (594 operational)
AH-64 APACHE	Advanced attack helicopter	In production, operational FY 86
PATRIOT	High and medium altitude surface-to-air missile	In production, operational FY 85
DIVAD	Short-range, fast reaction division air defense weapon	In production, operational FY 86
Multiple-Launch Rocket System	Self-propelled, tracked multiple-rocket launcher/loader	In production, operational
High Mobility Multipurpose Wheeled Vehicle	Utility vehicle	First series of testing complete, production initiated
SINCGARS	Single channel VHF/FM combat net radio	In production

As of 1 January 1985

Chart IV-10



SOVIET BMP

US M113 armored personnel carrier, which has for a number of years protected and transported troops on the battlefield, is being replaced by the BRADLEY fighting vehicle. The BRADLEY, armed with the TOW antitank missile system and 25mm cannon, provides a major improvement in mobility, armor protection, and weapons accuracy.

Both the United States and the Soviet Union are continuing their artillery upgrade programs. Several Soviet artillery systems are being replaced with new 122mm self-propelled howitzers, 203mm guns, 240mm mortars, 152mm towed and self-propelled guns, 152mm self-propelled howitzers, and new 122mm and 220mm multiple-rocket launchers. These improvements provide Soviet maneuver forces with protected, highly mobile, and responsive weapons for mechanized operations. The United States is replacing its towed 155mm howitzers with new, longer range models and is continuing to improve munitions for all systems. The new MLRS, which is currently being fielded, provides a significant improvement in US indirect fire capability.

The FROGFOOT close air support aircraft and battlefield attack helicopters provide the Soviets an expanded capability to support maneuver units. The US Army is also upgrading its aerial support of the battlefield by fielding the BLACKHAWK utility helicopter and will increase its capabilities further when the APACHE advanced attack helicopter is introduced with its HELLFIRE antitank missile. The United States has a continuing requirement to field a division air defense system to help counter improved Soviet close air support capability. In addition, the PATRIOT surface-to-air missile system, now being fielded, will provide an all-altitude capability to counter saturation air attacks by the Soviets.

MULTIPLE-LAUNCH ROCKET SYSTEM

AH-64 APACHE

Combat Air Forces

The United States is continuing to improve its combat air forces through the procurement of new systems and modification of existing capabilities. The advantage held by the United States will narrow when the Soviets deliver the FLANKER (Su-27), FULCRUM (MiG-29), and FOXHOUND (MiG-31) to operational units in significant numbers. Newer Soviet aircraft will feature improvements in maneuverability, fire control, airframe construction, electronics, armament, and range-payload capability. The deployment of the Soviet MAINSTAY airborne warning and control aircraft and aerial tankers for theater support will further increase the effectiveness of Soviet combat aircraft.

Chart IV-11 displays US and Soviet combat aircraft by category, and Chart IV-12 compares tactical aircraft production rates. These production figures include both dual-role and single-role Soviet and US aircraft. The current Soviet trend is toward single-role air-to-air fighter aircraft.

The US Air Force continues its growth toward a 40 tactical fighter wing (TFW)-equivalent structure and should reach 39 TFWs by FY 1990 Al- gh the rate of growth is not as rapid as origi- lanned, the current inventory will be increased proximately three TFWs, and significant mod- ization will accompany this growth. The Air National Guard will begin receiving F-15s and additional F-16s in FY 1986. In addition, the current force will be improved substantially through engine modification programs, increased air-to-air missile self-protection capabilities, and upgraded defensive systems for most tactical aircraft. Additional procurement of AIM-7M radar missiles and AIM-9M heat-seeking missiles will increase US air-to-air combat capability.

The Strategic Air Command (SAC) will improve the capability of its B-52s to provide conventional support from CONUS or forward bases. The B-52 can carry a full range of gravity bombs, naval mines, and HARPOON antiship missiles. Current plans call for dedicating all B-52Gs not configured for the ALCM to a primary theater support mission by the end of 1988. The B-1B will provide new employment options to deliver conventional weapons and, like the B-52, an all-weather, day-night capability.

F-16 WITH BOMBS AND SIDEWINDER MISSILE

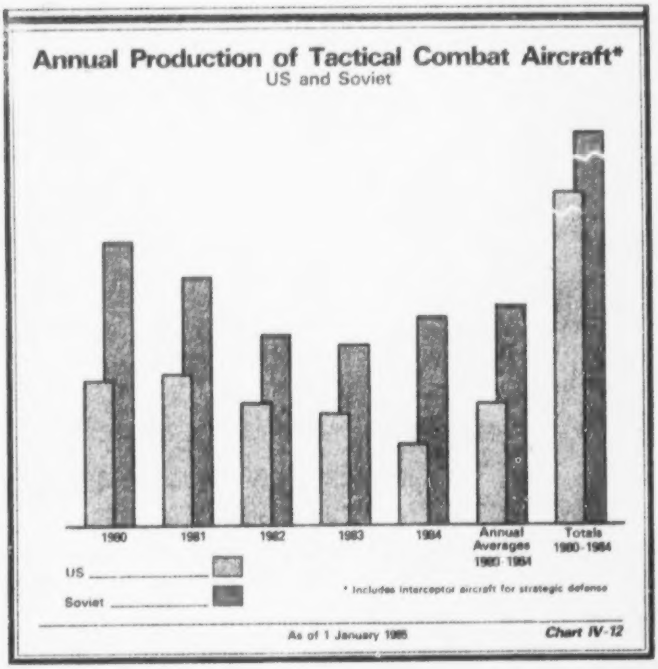
In-flight refueling by KC-10 and KC-135 tankers enhances the effectiveness and flexibility of US and allied aircraft. This capability allows tactical

Current US and Soviet Combat Aircraft

Category	*US Aircraft*	*USSR Aircraft*
Air-to-Surface	B-1, B-52	BACKFIRE, BEAR, BISON, BADGER, BLINDER
	F-111, A-6	FENCER, FITTER
	F-4, A-7, A-4, F/A-18, F-16	FLOGGER, FISHBED
	AV-8	FORGER
	A-10	FROGFOOT
Air-to-Air	F-15, F-14, F-4	FLOGGER, FOXBAT, FOXHOUND, FIDDLER, FLANKER
	F-16, F/A-18	FULCRUM, FISHBED, FLAGON, FIREBAR
RECCE/EW/-AWACS	RF-4, SR-71, F-14 TARPS	FITTER, FOXBAT, FISHBED
	U-2, TR-1	
	RC-135	BEAR
	EF-111, EA-6, EA-3	FENCER, BREWER, BADGER
	E-3A, E-2, EC-130	MAINSTAY, MOSS, CUB

As of 25 January 1985

CHART IV-11



Annual Production of Tactical Combat Aircraft*

US and Soviet

* Includes interceptor aircraft for strategic defense

As of 1 January 1985

Chart IV-12

combat aircraft to carry maximum payloads and employ optimum tactics. The closure time of reinforcing forces is also reduced by permitting nonstop transit to forward operating locations. In addition, timely aerial refueling extends the loiter time of surveillance and reconnaissance aircraft allowing for more efficient use of these assets.

In a battlefield environment, combat rescue (CR) missions could require the diversion of tactical sorties to ensure the safe return of downed crewmen. Such actions return critical manpower to duty and make a direct contribution to the morale and motivation of combat forces. For these reasons, the Air Force is improving its CR capability by procuring 90 HH-60A helicopters. These air-refuelable aircraft will provide a low-level, night, under-the-weather, threat penetration capability. In addition, the Air Force is modifying some existing helicopters and HC-130 tankers for such missions.

The US Marine Corps continues to modernize its tactical air systems, air defense weapons, and airspace command and control. Significant improvements will result from further production of the F/A-18 and continued expansion of the AV-8B inventory to improve light attack forces. By FY 1986, this modernization will have included the transition of the first four F-4 squadrons to F/A-18s, the first A-4M squadron to AV-8Bs, and an AV-8A squadron to AV-8Bs. Marine Corps air defense is being improved by adding additional HAWK missile systems to existing units. The LASER MAVERICK, STINGER POST, HELLFIRE missiles, and GATOR mines will improve the capabilities of Marine aviation and air defense elements to perform tactical missions.

The Navy's tactical aviation force is expanding to support a goal of 15 aircraft carrier battle groups. The 14th carrier air wing is scheduled to be activated in FY 1987. The dual-mission F/A-18 has been intro-

F/A-18 PREPARES TO LAUNCH

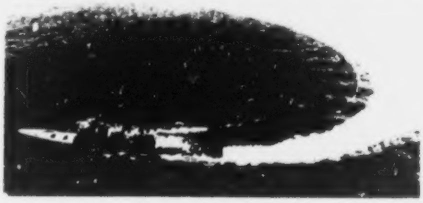
duced to the fleet, and 4 of 26 programmed Navy squadrons have been established. By 1987, the Navy will have 10 Active F/A-18 squadrons. A modernization program is under way to upgrade the F-14A, its PHOENIX missile system, and the A-6E to counter the threat of the 1990s. In FY 1986, the Naval Air Reserve will complete its transition of two squadrons to F-14A, an A-7B squadron to the A-7E, and an A-7B squadron to the F/A-18.

Naval Forces

The US Navy has embarked on an important shipbuilding program in response to the buildup and modernization of Soviet naval forces and requirements of US military strategy. The key elements of the 600-ship Navy program are 15 aircraft carrier battle groups, 4 battleship surface action groups (SAGs), 100 SSNs, 10 underway replenishment groups, and improved amphibious lift. Chart IV-13 outlines the FY 1986 shipbuilding program.

This modernization program is most dramatically reflected in the evolution of major surface combatants. Fitting out continues on the THEODORE ROOSEVELT, which will form the nucleus of a fifth nuclear-powered carrier battle group. The battleship NEW JERSEY, the first US combatant to deploy the TOMAHAWK long-range cruise missile, completed an extended deployment in 1984. IOWA, the second battleship, was recommissioned in 1984; it will be followed by MISSOURI and WISCONSIN, each of which will form the nucleus of a SAG.

The TICONDEROGA (CG-47), the first ship of a new guided-missile cruiser class, completed a successful initial deployment in 1984. The ship, with its AEGIS combat system, adds a new dimension to



AEGIS CRUISER

US Naval Shipbuilding Program

Category/Class	*FY86*	*FY87*	*FY88*	*FY89*	*FY90*	*TOTAL*
Ballistic Missile Submarines	1	1	1	1	1	5
Nuclear-powered Attack Submarines	4	4	4	3	4	19
Aircraft Carriers	-	-	-	-	-	-
Cruisers	3	3	3	2	-	11
Destroyers	-	2	5	5	5	17
Amphibious Ships	3	0	3	3	3	12
Mine Warfare Ships	8	5	4	4	-	21
Support Ships	4	5	4	4	5	22
Landing Craft (Air-cushion)	12	12	12	12	12	60
Conversions/Reactivation						
Amphibious SLEP*	-	-	1	3	3	7
Aircraft Carrier SLEP*	-	1	-	-	1	2
Battleship Reactivation	-	1	-	-	-	1
Support Ships	5	2	3	2	2	14

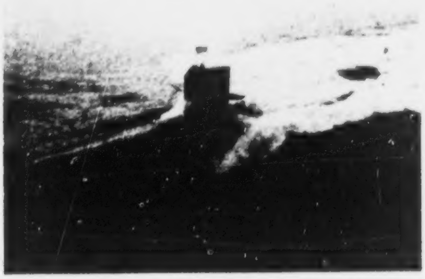
* Service Life Extension Program

As of 1 January 1985 **CHART IV-13**

US naval capabilities. In concert with carrier aircraft, the TICONDEROGA-class cruiser can defeat intense, coordinated attacks by enemy aircraft, submarines, and surface ships. A total of 27 ships of this class is planned. The ARLEIGH BURKE-class (DDG-51) guided-missile destroyer incorporates the AEGIS system with a Vertical Launch System (VLS) that accommodates a variety of antiair and antisubmarine weapons and TOMAHAWK missiles. Twenty-nine ships of this new class are planned. The lead ship has been authorized for FY 1989 delivery.

The existing fleet is being modernized. All 30 cruisers in the current inventory are receiving a longer range SAM and a faster, more tightly integrated computerized combat system—New Threat Upgrade. Twenty-four of the 31 SPRUANCE-class destroyers will receive the VLS, enabling them to carry many more antisubmarine rockets and the TOMAHAWK missile; the remainder will be capable of launching TOMAHAWK, but will not be outfitted with VLS. The introduction into the fleet of the SH-60B antisubmarine, surface surveillance, and targeting helicopter and improvements in towed hydrophone arrays and active sonar will greatly improve the ability to detect and destroy enemy submarines. The installation of TOMAHAWK and improved capabilities in new US surface combatants will distribute the naval strike capability over a wider base, which will deny the Soviets the opportunity to concentrate their forces against CVBGs and complicate their planning and targeting.

The LOS ANGELES-class submarine is quieter, faster, and more capable than earlier US nuclear attack submarines. This SSN is armed with MK-48 antisubmarine and antiship torpedoes, HARPOON antiship missiles, and TOMAHAWK missiles and provides an effective counter to new Soviet SSNs. Eighteen LOS ANGELES-class submarines will be authorized between FY 1985 and FY 1989. The follow-on SSN-21-class is being developed for the mid-1990s and beyond. This submarine will be faster, more heavily armed, and quieter than the LOS ANGELES-class and will have an increased capability for diving and operations under ice. ASW capabilities will also be strengthened through such programs as the P-3C Update IV, S-3B Weapons System Improvement Program, and CV Inner-Zone Helicopter.



LOS ANGELES-CLASS ATTACK SUBMARINE

The Soviets have over 200,000 naval mines and the capability to plant them near SLOCs and in key ocean areas. More effective mine warfare platforms, such as the AVENGER-class mine countermeasures ship (MCM-1), will soon enter the US fleet. The MCM-1 class is a multimission oceangoing ship capable of neutralizing sophisticated ocean mines. Fourteen MCM-1 vessels will be built. The construction of 17 CARDINAL-class minesweeper hunter ships is also planned for coastal mine clearance.

Amphibious Forces

The Navy-Marine Corps amphibious team provides an effective combat force for deterrence and power projection. The mobility of the amphibious task force permits it to concentrate combat power when and where needed and then move on to other tasks. The Marine air-ground task force (MAGTF) provides ground and air combat elements capable of conducting forcible entry to seize and control strategic choke points and lodgments as well as establishing and defending bases essential to a naval campaign. MAGTFs are organized and equipped primarily for amphibious operations, but are capable of responding to a wide variety of other contingencies.

AMPHIBIOUS ASSAULT FORCES

A Marine amphibious force (MAF) is the largest MAGTF for planning and is normally built around one division, an aircraft wing, and a force service support group. During FY 1986, the Marine Corps will maintain three MAFs within its Active structure, one in the Western Pacific and one on each coast of the United States. The Marine Corps Reserve will continue to provide augmentation and reinforcement of the three Active MAFs upon mobilization, as well as the capability to serve as a reserve MAGTF.

The firepower available to the maneuver elements of the MAF has been improved through the increased lethality and range of the M198, 155mm towed howitzer. Further, each MAF's counterfire capability will be improved by the activation of the last of three target acquisition batteries by FY 1988. Each division's heavy antiarmor capability is being doubled by adding a TOW platoon to each infantry regiment. Other antiarmor improvements include procurement of an improved light antitank weapon and increasing by 25 percent the number of DRAGON antitank weapons in each infantry battalion.

Tactical mobility for ship-to-shore operations is being improved by the replacement of older amphibious ships with the highly capable LHD-1, LSD-41, and follow-on ships. Amphibious assault capability is also being improved by the introduction of air-cushion landing craft (LCAC) and the Tracked Landing Vehicle Service Life Extension Program (LVT SLEP). The LCAC can carry a 60-ton payload from an over-the-horizon launch to the beach at speeds in excess of 40 knots. Twenty-one of 90 planned LCACs have been contracted for delivery. In addition, the LVT SLEP will extend the life of existing amphibians into the 1990s.

Armored mobility and firepower on the ground will be improved with the fielding of the Light Armored Vehicle (LAV). The first LAV battalion has been activated and two additional battalions are to be added in 1986; a Reserve LAV battalion will be activated in 1987.

LIGHT ARMORED VEHICLE

The modernization of Marine airlift is centered on CH-53E cargo helicopters. The CH-53E lift capability permits the airlift of over 93 percent of a division's combat-essential equipment. Chart IV-14 depicts major Marine Corps modernization programs.

Marine Corps Modernization

System	*Description*	*Status*
CH-53E	Heavy lift helicopter	In production, 3 squadrons operational
AV-8B	VSTOL attack aircraft	In production, operational
F/A-18	Fighter/attack aircraft	In production, 3 of 12 squadrons converted from F-4
LVT	Amphibious landing vehicle	Undergoing major upgrades and service life extension
LAV	Light armored vehicle	In production, operational
LCAC	Air cushion landing craft	In production, operational FY 86
JVX	Vertical lift aircraft	In development

As of 1 January 1985

Chart IV-14

Chemical Capabilities

The adequacy of the US chemical warfare (CW) posture remains a matter of concern. The Soviets continue to maintain a significant capability to employ chemical weapons and there is evidence that the Soviet Union has sponsored the use of lethal chemical agents against the people of Laos, Kampuchea, and Afghanistan, despite the fact that the Soviet Union is a signatory of the 1925 Geneva Protocol. The United States, which is also a signatory to the Geneva Protocol, has a policy of no first use of chemical weapons. However, the United States has reserved the right to retaliate should the United States or its allies be attacked with these weapons.

Since 1969 the United States has refrained from producing chemical weapons in the hope that the Soviets would exercise similar restraint. The Soviet Union, however, has continued developing its CW capabilities by a vigorous research and development effort, stockpiling large quantities of chemical agents, maintaining an extensive agent production capability, deploying chemical weapons with modern delivery capabilities, and training extensively in CW. Since the mid-1970s, the United States has attempted, with little progress, to negotiate an effective, verifiable chemical weapons arms control agreement with the Soviet Union. The United States has focused its CW efforts on defensive capabilities and the maintenance of a limited retaliatory capability.

The United States has made progress in its chemical defense program. Individual protective equipment is available to all Services, improved detection equipment has been fielded, and further improvements are being sought. A number of promising collective protection systems are also being evaluated. Chart IV-15 outlines the current US chemical defense posture.

CHEMICAL DECONTAMINATION TRAINING

US Chemical Warfare Protection Capabilities

CATEGORY	CURRENTLY USED	PLANNED IMPROVEMENTS
• Individual protection	• Protective mask • Protective overgarment	• Improved mask • Lightweight overgarments
• Collective protection	• Limited shelters	• Disposable shelters • Fixed site shelters • Shipboard upgrades • Portable modular systems
• Detection and warning	• Detection paper • Chemical agent alarm • Chemical agent detector kit	• Hand-held monitor • Unattended remote sensor • Point scanner
• Decontamination	• Individual decontamination • Decontamination apparatus	• Non-water-based decontamination • Chemical agent-resistant coatings

As of 1 January 1986

Chart IV-15

Chemical defense programs require continued strong support.

A defensive chemical posture is not enough. The United States must have a credible CW retaliatory capability so the Soviets will be forced to consider the consequences to their own forces if they initiate the use of CW. The majority of US chemical munitions can no longer be used effectively in combat. The most critical deficiency is the lack of a delivery capability against targets beyond artillery range. The Soviets can attack and degrade not only close-in targets, but also airfields, logistic nodes, command and control facilities, and other functions. NATO forces have a very limited capability to retaliate and impose similar degradations on the Warsaw Pact.

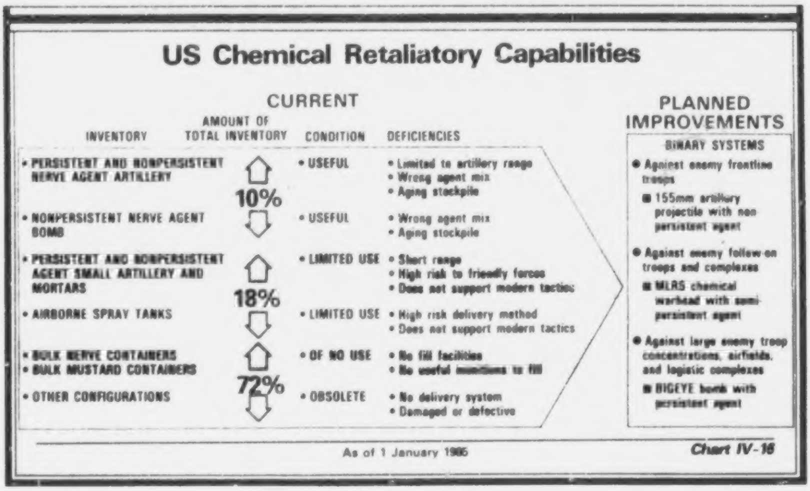
To provide a credible CW deterrent, the United States needs to acquire modern chemical munitions and improved delivery means. Only by establishing a credible CW retaliatory capability can the United States hope to raise the level of deterrence and persuade the Soviets to negotiate a chemical weapons ban seriously. Chart IV-16 summarizes US retaliatory capabilities and modernization programs.

Special Operations Forces

Special operations forces (SOF) have unique capabilities that make them valuable to the NCA and commanders in the field. SOF are capable of conducting operations during peacetime and throughout the conflict spectrum. SOF are particularly well qualified to counter threats to US interests that result from low-intensity conflict.

SOF are also capable of direct action in response to crises for which the use of other US forces might be inappropriate. Such crises might include threats of hostile acts against US citizens or facilities abroad by terrorists, dissidents, foreign governments, or other groups. SOF are especially useful in resolving crises and terminating conflicts that are still at relatively low levels of violence and to which the nations involved have not made major commitments.

Further, SOF must also be able to support conventional forces in the event of large-scale aggression against the United States and its allies. To this end, SOF can provide invaluable intelligence to field commanders and conduct psychological, civil affairs, and unconventional warfare operations. Unconventional warfare missions include the interrelated fields



US Chemical Retaliatory Capabilities

CURRENT

INVENTORY	AMOUNT OF TOTAL INVENTORY	CONDITION	DEFICIENCIES
• PERSISTENT AND NONPERSISTENT NERVE AGENT ARTILLERY	10%	• USEFUL	• Limited to artillery range • Wrong agent mix • Aging stockpile
• NONPERSISTENT NERVE AGENT BOMB		• USEFUL	• Wrong agent mix • Aging stockpile
• PERSISTENT AND NONPERSISTENT AGENT SMALL ARTILLERY AND MORTARS	18%	• LIMITED USE	• Short range • High risk to friendly forces • Does not support modern tactics
• AIRBORNE SPRAY TANKS		• LIMITED USE	• High risk delivery method • Does not support modern tactics
• BULK NERVE CONTAINERS • BULK MUSTARD CONTAINERS	72%	• OF NO USE	• No fill facilities • No useful munitions to fill
• OTHER CONFIGURATIONS		• OBSOLETE	• No delivery system • Damaged or defective

PLANNED IMPROVEMENTS

BINARY SYSTEMS

- Against enemy frontline troops
  - 155mm artillery projectile with nonpersistent agent
- Against enemy follow-on troops and complexes
  - MLRS chemical warhead with semi-persistent agent
- Against large enemy troop concentrations, airfields, and logistic complexes
  - BIGEYE bomb with persistent agent

As of 1 January 1985

Chart IV-16

of guerrilla warfare, direct action, and evasion and escape.

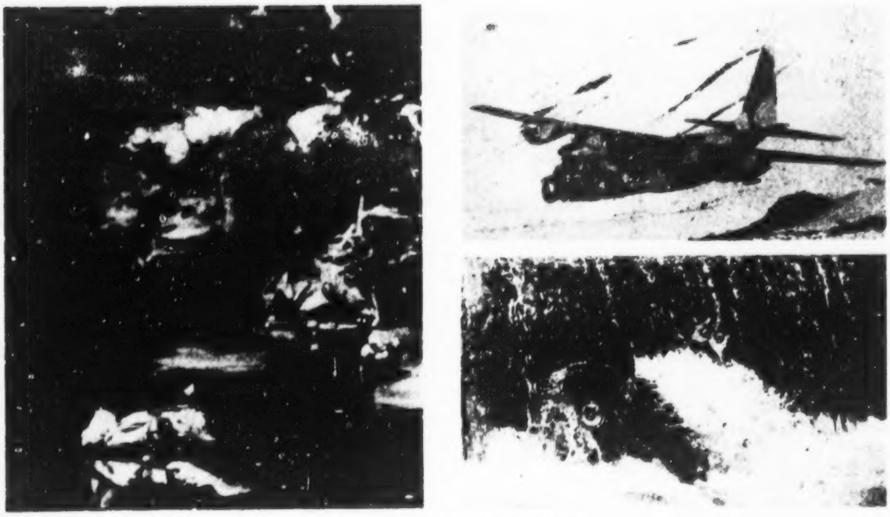
The potential of SOF justifies the high priority given to the revitalization of their capabilities. In early 1984, the JCS established the Joint Special Operations Agency (JSOA) to improve the management of SOF and increase the responsiveness of these forces to worldwide requirements. JSOA is providing a mechanism for improving cross-Service research and development, joint training and doctrine, and strategic planning. Action is under way to improve SOF capabilities to meet national-level and theater requirements in peace, crisis, and war. Chart IV-17 outlines some of the initiatives taken to enhance these forces. Command, control, and communications; air mobility; psychological operations; and other SOF needs will continue to receive priority attention.

US Special Operations Forces*

Service	*Current Forces*	*Initiatives*
Army	• 1 Special Operations Command 8 Special Forces Groups 24 Special Forces Battalions 4 PSYOP Groups 12 PSYOP Battalions 2 Special Operations Battalions • 1 Ranger Regiment HQ • 3 Ranger Battalions • 1 Civil Affairs Battalion (Active)	• Additional special forces group • Increases in special forces and PSYOP personnel, helicopters, and staff support • 1 PSYOP battalion (active) • Equipment improvements
Navy	• 2 NAVSPECWAR Groups 3 NAVSPECWAR Units 2 SEAL Delivery Vehicle Teams 6 SEAL Teams 2 Special Boat Squadrons 6 Special Boat Units 1 Dry-deck Shelter-capable Submarine	• 1 new SEAL team • Procurement of specialized equipment • Construction of special facilities and support craft • 3 dry-deck shelter-capable submarines per fleet
Air Force	• 1 Air Division 1 Special Operations Wing 5 Special Operations Squadrons 1 Helicopter Detachment • 2 Reserve Special Operations Groups 3 Special Operations Squadrons	• Additional COMBAT TALON (MC-130) aircraft • EC-130E VOLANT SOLO II aircraft upgrade • Upgrade of survival systems and inflight refueling • Navigation and special avionics upgrades

* Active and reserve

As of 1 January 1985 *Chart IV-17*



SPECIAL OPERATIONS FORCES

EMPLOYING AND SUPPORTING THE FORCES

Force Capabilities

Status and Trends

The readiness of forces to perform their missions depends on the personnel and materiel resources provided and how well those resources are trained and maintained. US force capabilities continue to improve as a result of successful recruiting and retention efforts, improved training, and equipment modernization programs. The funding of recent budget initiatives has strengthened readiness and operational capabilities. Sustained funding will be required to maintain the current momentum.

Reserve Force Contributions

Reserve forces, which constitute approximately 45 percent of the total force structure, play a key role in the implementation of US military strategy. Over one-third of the Army's combat divisions are in the Army National Guard; two-thirds of the combat service support structure is in the Reserve component. Half of the Military Airlift Command's (MAC) strategic airlift crews and SAC tanker-cargo (KC-10) aircrews, 90 percent of Air Force aeromedical evacuation units, and two-thirds of the air defense interceptor forces for CONUS are Air Reserve forces.

The Naval Reserve provides all the Navy's airlift in CONUS, operates over three-fourths of the ocean minesweepers, and contributes one-third of the total Navy medical support personnel. The Marine Corps Reserve provides an additional division-aircraft wing team and other smaller units.

AIR FORCE RESERVE F-4

Reserve forces play an important role in day-to-day operations. The Air National Guard, for example, provides A-7 aircraft as part of the forward-deployed US forces in Panama. Within the last year, 13,000 Army and 6,000 Air National Guard members participated in 14 major exercises worldwide. Naval Reserve aviators augmented the E-2C squadron aboard the carrier JOHN F. KENNEDY to provide continuous airborne early warning off Lebanon in 1984. In addition to their primary mission of refueling SAC alert forces, Air Reserve Force tankers support forces in Europe, the Pacific, and Alaska. Air Reserve aerial port teams regularly provide augmentation at major air terminals in CONUS and overseas. Air Force Reserve C-5 and C-141 aircrews routinely fly 30 percent of MAC's airlift missions worldwide. Offloading operations supporting the newly formed MPS squadrons depend heavily on the Naval Reserve. The Marine Corps Reserve participated in exercises in Europe, Japan, Korea, and Puerto Rico during FY 1984.

Training and Exercises

Realistic and challenging training is essential to the development and maintenance of US capabilities. Facilities such as the Army's National Training Center, the Marine Corps' Air-Ground Combat Center, and the Air Force's Nellis range complex provide environments in which units can experience wartime conditions against realistic adversaries. Data gathered at these and similar facilities assist the Services in improving doctrine, tactics, training methods, and unit operating procedures. Range modernization, acquisition of training simulators and devices, and the increased use of technology are helping to provide more effective, realistic training. Cooperative training projects with our NATO Allies provide economies of scale and enhance standardization of tactics and procedures.

As an important extension of Service training, the exercise program directed or coordinated by the JCS provides opportunities to evaluate joint doctrine; tactics, techniques, and procedures; and command and control capabilities—knowledge essential to ensure the readiness of US forces to support the unified and specified commands. This program includes approximately 75 exercises per year throughout the world. Additionally, combined exercises with allies provide the necessary interaction to test and evaluate combined capability, effectiveness of LOCs, and adequacy of mutual support arrangements.

In addition to supporting general training objectives, joint exercises demonstrate US resolve and the capability to project a military presence in support of national interests and commitments. The BRIGHT STAR series of exercises conducted in the Middle East demonstrates the US capability to project military forces into that region should the need arise. Similarly, intensified joint and combined exercises have been conducted with friends and allies in the Central American-Caribbean region. The annual REFORGER/CRESTED CAP exercises for the reinforcement of NATO, and TEAM SPIRIT, which takes place in Korea (Map IV-9), continue to demonstrate US resolve and support for allies in those regions.

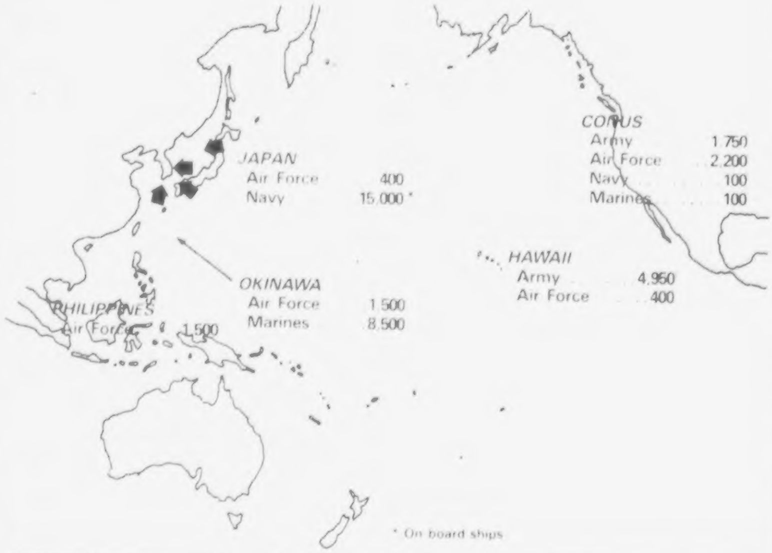
EXERCISE REFORGER

EXERCISE TEAM SPIRIT-84

Mobility

US military strategy requires the capability to deploy forces rapidly and sustain them. Air, sea, and land mobility forces must be able to deliver

Deployments For Exercise TEAM SPIRIT—84


JAPAN
Air Force 400
Navy 15,000 *
OKINAWA
Air Force 1,500
Marines 8,500
PHILIPPINES
Air Force 1,500
HAWAII
Army 4,950
Air Force 400
CONUS
Army 1,750
Air Force 2,200
Navy 100
Marines 100
* On board ships

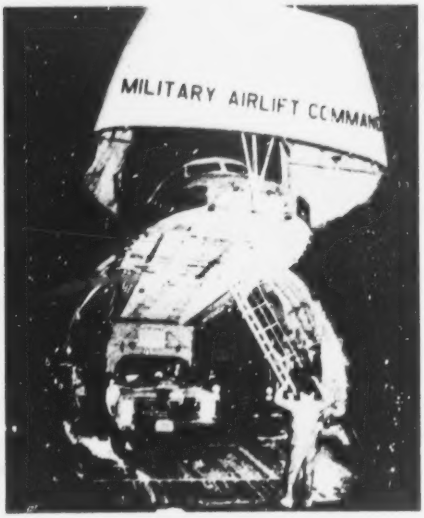
As of 1 January 1985

Map IV-9

combat forces where they are needed in time to make a difference. Intertheater and intratheater airlift will generally transport deploying forces during the early days of a crisis until sealift begins to arrive. These movements will include personnel and equipment supported by pre-positioned stocks. Sealift delivers follow-on forces and provides the sustaining power for deployed forces. Land mobility forces provide needed offload capabilities and, together with intratheater airlift, support onward movement requirements.

Airlift

Airlift is essential to the rapid deployment of US forces. Programmed increases in intertheater aircraft, improvements in wartime aircraft utilization rates, ex-



AIRLIFT DEPLOYMENT

US Airlift Forces

Military Aircraft

Type	Number** (Active/Reserve)
C-5	70/0*
C-141	234/0*
C-130	216/302
KC-10	28/0*

Civil Reserve Air Fleet

Type	Number**
Domestic	38
Alaskan	7
Short-range International	12
Long-range International (Passengers)	226
Long-range International (Cargo)	63

* C-5s, C-141s, and KC-10s are jointly operated by Active and Associate Reserve Units. Eight C-5s will transfer to the Air Reserve Forces in 1985

** Full Activation

As of 1 January 1985 *Chart IV-18*

tensions to the service life of existing aircraft, and enhancement of Civil Reserve Air Fleet (CRAF) capabilities are contributing to improvements in aircraft readiness and sustainability. A summary of airlift forces is presented in Chart IV-18.

The programmed airlift force, together with programmed spares and the C-5A wing modification program, will provide approximately 39 million ton-miles per day (MTM/D) of intertheater cargo airlift in FY 1985. With the acquisition of the initial C-5B and the above increases, this capability will grow to over 43 MTM/D in FY 1986. Fifty-seven KC-10s, programmed for acquisition by FY 1988, will increase the intertheater airlift by another 4.6 MTM/D under current employment concepts. Forty KC-10s have been funded to date. Intratheater airlift improvements continue within the C-130 fleet. The continued wing repairs of C-130A aircraft will extend their operation into the 1990s. Wing modifications to the C-130B/E aircraft will extend their service life into the next century.

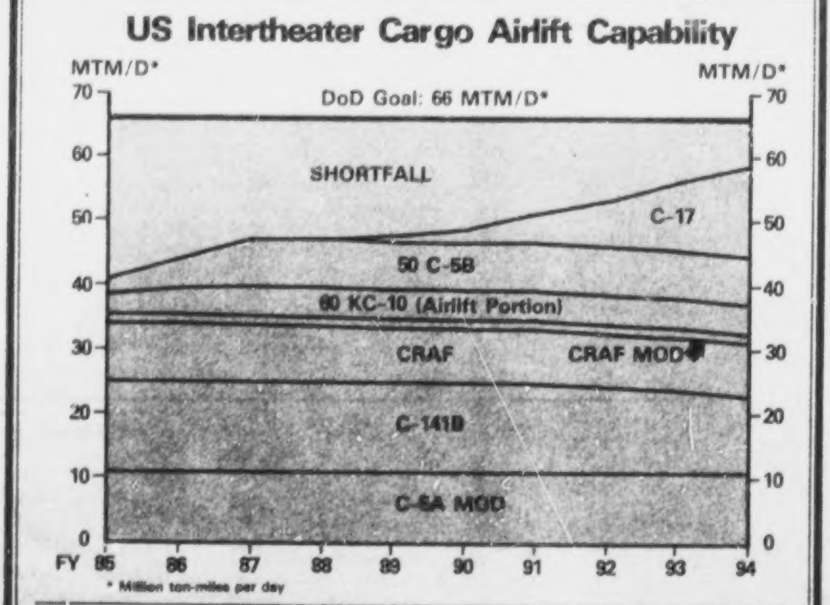
CRAF consists of commercial aircraft voluntarily committed by US civil air carriers to serve the nation during emergencies. Efforts continue to improve the CRAF, which would provide practically all long-range passenger capability and about one-fourth of its cargo capability when called into service. The CRAF Enhancement Program is designed to modify passenger aircraft into convertible freighters suitable for bulk and oversize cargo. One DC-10 has been delivered in this configuration and 19 wide-bodied aircraft are scheduled for modification between FY 1985 and FY 1986. These modified aircraft will provide an additional 1.5 MTM/D per day of cargo airlift.

The C-17 is programmed to reduce the airlift shortfall further. Full-scale engineering development begins this year, with the IOC of the first full squadron scheduled for FY 1992. This aircraft will provide increased intertheater and intratheater delivery of troops and cargo to field commanders, using normal offload techniques, outsize airdrop, or low-altitude parachute extraction. The air-refuelable C-17 has outstanding ground maneuverability and takeoff and landing profiles designed to allow routine operations at small, austere airfields. These features will provide considerable operational flexibility. The C-17 will help offset the capability lost with the retirement of older C-130s and will replace part of the C-141B contribution as that aircraft approaches the end of its useful service life. A summary of programmed intertheater cargo airlift capability is presented in Chart IV-19.

Sealift

In any major overseas deployment, sealift will deliver about 95 percent of all dry cargo and 99 percent of all petroleum products. Ships from the US merchant marine represent the largest domestic source of sealift, making them an important strategic resource. In addition, US allies will provide 400 ships for the rapid reinforcement of NATO and 32 ships for reinforcement of the ROK. Sealift forces suitable for military planning are listed in Chart IV-20.

US sealift assets available for initial deployment requirements continue to decline, even though the numbers of dry-cargo ships available from the National Defense Reserve Fleet (NDRF) and Military Sealift Command's peacetime controlled fleet have remained constant. The problem is the decline of the US-flag merchant marine. Over the past 30 years, the number of militarily useful US dry-cargo ships available for contingency planning has decreased from 2,400 to about 325. Not only is the number of available ships declining, but those that remain are not necessarily the most suitable for military purposes. The most useful ships for military deployment are breakbulk, roll-on/roll-off, and barge carriers. The trend toward containerships and away from breakbulk ships poses increasing readiness concerns. Containerships are more suited for resupply than deployment because less than 25 percent of military unit equipment can be containerized.


US Intertheater Cargo Airlift Capability

* Million ton-miles per day

As of 1 January 1985

Chart IV-19

Strategic Sealift Resources

	Dry Cargo		Tankers
US Flag Merchant Ships	210		123
Government Ships			
Military Sealift Command Controlled	15		21
Military Sealift Command Reduced Operating Status	4		0
Military Sealift Command Near-term Pre-positioning Force—Maritime Pre-positioning Ships	15		5
Ready Reserve Force	56		8
Effective US Control	27		42
	327	US Totals	199
NATO Pool*	400		0
	727	US—NATO Totals	199
Korea Ships**	27		5
National Defense Reserve Fleet (remaining useful)	129		12

* 400 Out of a pool of over 800 could be made available for NATO reinforcement

** Not intertheater assets

As of 1 January 1985

Chart IV-20

Ships in the NDRF are a valuable but aging asset. Only 141 ships are currently capable of satisfying deployment requirements. The Ready Reserve Force (RRF), an upgraded segment of the NDRF, has recently been expanded to meet sealift surge requirements during initial phases of overseas reinforcement. The 64 RRF ships are being maintained in a 5- to 10-day readiness status at three CONUS anchorage areas. In 1985, the Navy will begin a program to locate some of these ships at activation ports to increase their response time and readiness. A program is under way to increase the number of dry-cargo vessels, tankers, and craneships.

Other programs are also under way to improve the sealift posture and provide a more rapid deployment capability. The Navy has converted four of eight SL-7 class containerships to a more useful partial roll-on/roll-off configuration. The remaining ships will complete conversion during FY 1985-1986. These converted ships are based on the East and Gulf coasts and are maintained in a status that will allow them to sail in 4 days to the seaport of embarkation. Further, two ships will complete conversion to aviation logistics support ships in FY 1986. These ships will provide the lift for facilities to support Marine Corps aircraft. Two other ships will be configured as hospital ships (TAHs). The TAHs, which are scheduled for delivery in CY 1986 and CY 1987, will be based in CONUS with a partial crew on board and be ready to sail in 5 days. In addition, an auxiliary craneship was delivered in 1984. Containerships are being reconfigured to accept unit equipment, and various supporting systems are being improved.

To obtain the maximum benefit from sealift, US forces must be able to unload and distribute cargo rapidly in all theaters of operation. In central Europe, modern ports, road and rail networks, and host-nation support are available to facilitate the reception and onward movement of deploying forces. Deployments to many other areas would face more limited port capacity, transportation networks, and host-nation support capabilities. US forces are currently hampered by shortages in the specialized equipment and personnel required to support operations in austere ports or where over-the-shore delivery would be needed. Army and Navy programs are now delivering equipment designed to reduce logistic over-the-shore shortfalls. In addition, joint efforts are under way to ensure a balanced Army and Navy cargo offload and discharge program.

Pre-positioning

To overcome limitations of airlift and sealift, US programs for pre-positioning petroleum, water, supplies, equipment, and ammunition are in progress in various regions of the world. Such pre-positioning reduces rapid-deployment cargo requirements by permitting essential materials to be located where US forces would most likely be needed. Under the POMCUS program (pre-positioning of materiel configured to unit sets), equipment is being pre-positioned in Europe for Army divisions and numerous nondivisional support units. The POMCUS program for Europe, the War Reserve Stock for Allies (WRSA) program for Korea, and important initiatives for Southwest Asia provide essential strategically located materiel.

POMCUS MAINTENANCE

The MPS program is designed to combine the responsiveness of airlifted troops with sealift delivery of pre-positioned equipment. The 13 ships involved in the program will be organized into 3 MPS squadrons. The ships will carry equipment and 30 days of supplies for three Marine amphibious brigades. The first squadron will be deployed to the US Atlantic Command by mid-1985. The second squadron, which is to be formed in late 1985 and deployed to the US-CENTCOM area, will replace five of the depot ships currently at Diego Garcia. The third MPS squadron will deploy to the US Pacific Command area in FY 1986.

MARITIME PRE-POSITIONING SHIP

Deployment Management

The Joint Deployment System (JDS) is designed to provide an automated link between lift users, transportation operating agencies, lift-providing organizations, and receiving commands. The JDS provides an increased capability to schedule sealift and airlift rapidly and design or modify force allocations for planned deployments.

Sustainability

Sustainability gives military forces staying power once they are deployed in peacetime or in combat. Materiel sustainability consists of several interdependent elements, including theater pre-positioning programs, CONUS depot stocks, host-nation support, and the industrial production base. Service program efforts are improving the US sustainability posture worldwide. It is important to note, however, that the pre-positioning objectives represent only the minimum quantities required to sustain combat forces until SLOCs can be securely established. Additional CONUS assets are needed to sustain combat forces from the period when theater war reserve stocks would be depleted until full industrial mobilization can satisfy wartime requirements.

Ammunition

Ammunition shortfalls are the critical issue in materiel sustainability. Commanders continue to identify inadequate munitions stockpiles as the most significant constraint on their combat capabilities. This constraint applies particularly to the more modern munitions, which provide increased firepower with reduced delivery system vulnerability. The Services continue to fund increases in war reserve ammunition. Programs must be pursued that balance the need for increased pre-positioned and CONUS stockpiles with industrial base enhancements that support a self-sustaining ammunition structure. Additionally, the United States is encouraging its allies to produce munitions compatible with US pre-positioned stocks within their countries, and urging them to improve their munitions sustainability.

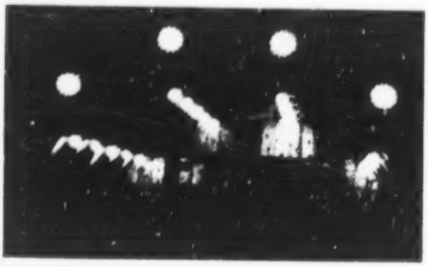
Petroleum, Oils, and Lubricants

The lack of theater storage facilities continues to be the most significant reason for shortfalls in POL stocks. The poor location of existing facilities and inadequate funding contribute to this condition. Recently approved NATO infrastructure funding will significantly improve the POL posture. The United States will also continue to seek favorable host-country agreements elsewhere.

Military Construction

In NATO Europe, infrastructure funding levels are insufficient to support high-priority requirements fully. The Alliance agreed in 1984, however, to support significant increases in infrastructure funding over the next 6 years. These increases will lead to completion of minimum essential facilities at all colocated operating bases required for reception of US tactical aircraft. In addition, infrastructure initiatives will allow NATO to expedite efforts to increase airbase survivability through the construction of hardened shelters and other facilities, and permit the Alliance to move forward with plans that will substantially improve command and control capabilities.

Airfield improvements and the construction of logistic support facilities have greatly increased the capability of the United States to deploy and sustain its forces in Southwest Asia. The leasing of warehouses will facilitate the pre-positioning of materiel in the region, and dredging efforts will improve fleet support. Efforts to negotiate contingency basing privileges and pre-positioning agreements within the region continue.

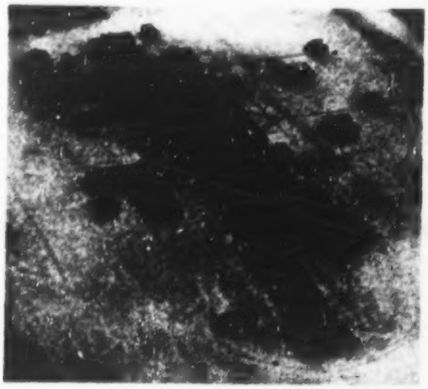


SHELTERED F-15

In the Pacific, host-nation and US military construction will continue to improve POL, munition, and medical storage capabilities, as well as the working and living conditions of US military personnel. Joint US-Japanese funding is facilitating the stationing of two F-16 squadrons in Japan beginning in the FY 1985-1987 time frame. Programmed ROK-funded construction projects will improve the combat survivability and supportability of deployed US forces there.

Medical Support

Medical support for US forces is improving, but shortfalls exist. If US forces were simultaneously engaged in several regions, for example, Western Europe and Northeast Asia, the Services could currently provide only 21 percent of the estimated 119,000 hospital beds required during the initial 60 to 90 days of combat. The shortfall results from procurement delays and the lack of adequate host-nation support agreements to allow pre-positioning and deployment of medical support assets. Present programs provide for funding of 9,700 beds in FY 1985 and 13,640 beds in FY 1986. These beds, when added to those funded but not yet delivered, will increase the medical support capability to 58 percent of the programmed requirement. These additional medical assets should be available for deployment in 1987-1988. Deployable medical systems must be funded at an adequate level to ensure acceptable medical care for theater combat forces.



DEPLOYABLE MEDICAL SYSTEM

Intelligence

Access to accurate and timely information and warning of possible attack are essential for the NCA, JCS, and military commanders. Intelligence provides decisionmakers with assessments of enemy forces, capabilities, and probable courses of action.

Reconnaissance Systems

The US reconnaissance program provides capabilities to meet many peacetime and wartime information collection requirements. Reconnaissance resources consist of strategic and tactical standoff and penetration systems. These systems provide a variety of intelligence data that might otherwise be denied to operating forces.

Strategic airborne systems include U-2R, SR-71, RC-135, and EP-3C aircraft that carry a variety of sensors. Tactical aircraft standoff systems include the Air Force TR-1, EC-130, and RC-135, the Army OV-1 and RV-1D, and the Navy EP-3 and EA-6B. The only Air Force tactical reconnaissance aircraft used in a penetrating role is the RF-4C with its photo, infrared, side-looking airborne radar, and tactical electronic reconnaissance capabilities. The Navy uses the F-14 Tactical Air Reconnaissance Pod System, and the Marines employ the RF-4B in a similar role. Planned improvements to strategic and tactical systems include additional TR-1 aircraft and installation of the Advanced Synthetic Aperture Radar System (ASARS) in the TR-1. RF-4 enhancements will include a ground terminal program for unit-level dissemination of data-linked information. The P-3 aircraft provides primary ocean surveillance for both surface and subsurface targets. Acoustic ocean surveillance of submarine activity is provided by SOSUS.

SR-71 BLACKBIRD

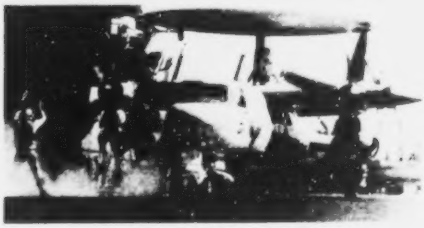
Peacetime requirements and the nature of modern warfare place an increasing demand on US intelligence systems. The collection, processing, and dissemination of tactical intelligence will benefit from developments such as new or improved sensors and related processors, e.g., the Air Force's Tactical Reconnaissance System, the Army-Air Force Joint Surveillance and Target Attack Radar System (JSTARS), the Navy's Ocean Surveillance Information System Basestone Upgrade (OBU), and advanced high-capacity data links. All-source fusion centers are also under development. The Army-Air Force Joint Tactical Fusion Program and the Navy OBU, for example, will eventually provide tactical commanders the means to assimilate information quickly from national and tactical sensor systems. The Commanders' Tactical Terminal, now under development, will facilitate dissemination of signals intelligence data.

Command and Control

Effective command and control is essential to the successful employment of military forces. Command and control systems are made up of people, equipment, and information systems designed to assist in planning, directing, and controlling military forces. Improvements in secure, interoperable, and survivable command and control systems for tactical forces have traditionally lagged behind those provided strategic forces. The Joint Tactical Command, Control, and Communications Agency was established in 1984 in order to oversee improvements and ensure compatibility and interoperability of tactical systems for joint-Service and multinational operations.

The Joint Tactical Information Distribution System (JTIDS), currently in production, will significantly improve the ability to exchange air defense information in digital communications among tactical units. JTIDS will also provide improved capabilities to communicate reliably in spite of enemy jamming, thus increasing the effectiveness of theater command and control. Tactical air communications are also being upgraded with antijam systems, such as HAVE QUICK and the Enhanced JTIDS. Communications for tactical commanders will be improved by the Ground Mobile Forces Satellite Communications Program and the fielding of the Single Channel Ground-Airborne Radio System, which has an antijam capability.

The Position Location Reporting System (PLRS), a joint Army-Marine command and control program, is in production and will improve the tactical commander's ability to locate and identify deployed friendly forces. JSTARS, which is being developed to improve target acquisition and weapons placement, will complement PLRS.



E-2C PREPARES TO LAUNCH

Effective Defense-wide communications systems are essential for the command and control of strategic and tactical forces, as well as their logistic, intelligence, navigation, and meteorological support. The Defense Communications System (DCS) provides US military forces with worldwide voice, data, and teletype services through networks of government and commercial facilities. In response to increased requirements, DCS subsystems will undergo changes that enhance survivability, expand transmission security, improve interoperability, and increase flexibility. Specific improvements include an increase in the number of switching systems and transmission paths, addition of physical and transmission security features, and development of countermeasures to protect network control facilities against computer manipulation.

A Secure Voice Improvement Program (SVIP) is being implemented to employ encryption techniques and technology compatible with the Civil Federal Secure Telephone Service and a secure telephone unit developed by the National Security Agency. Interoperability between the DCS and other military secure networks will be accomplished by facilities being developed under the SVIP.

Guidelines for increasing the survivability and interoperability of Department of Defense (DOD) telecommunications systems are being developed. Interconnected voice and data networks, enhanced secure voice survivability, and expanded use of satellite data are features being explored for current DOD systems and programs.

The Worldwide Military Command and Control System (WWMCCS) Information System (WIS) is being developed to modernize the current WWMCCS Standard Automatic Data Processing System and provide improvements in reliability, accuracy, and responsiveness. The main goal of this modernization is to provide timely, reliable, and responsive command and control information to the NCA.

The Joint Operation Planning and Execution System (JOPES) provides standard procedures for command and control of US forces through the use of automatic data processing. JOPES will support readiness monitoring and the planning and execution of mobilization, deployment, employment, and sustainment activities. JOPES will provide for close coordination among DOD and other Federal agencies, and provide useful data support to commanders and staffs. JOPES is being phased into operation over several years using the expanded capabilities of WIS and other related programs.

Modern Aids to Planning

The Modern Aids to Planning initiative has a near-term goal of providing modern analytical tools to commanders of the unified and specified commands to assist in their planning. This program will aid in the transition from the current planning system to JOPES. The enhanced command analytical capabilities will aid the CINCs in developing and evaluating their plans. The CINCs will have a stronger role in resource planning and deliberation through an improved means to quantify shortfalls affecting their plans.

C^3 Countermeasures and Electronic Warfare

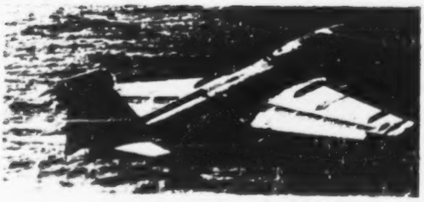
US Armed Forces maintain a C^3 countermeasures (C^3CM) capability to reduce an enemy's effectiveness by attacking his command and control structures while at the same time protecting and enhancing friendly command and control. The fundamental approaches to C^3CM are physical destruction, jamming, military deception, and operations security. These same approaches are also applicable to the protection of friendly C^3.

US forces require electronic warfare (EW) capabilities to reduce the enemy's effective use of the electromagnetic spectrum and provide electromagnetic information necessary to support offensive and defensive systems. EW capabilities must be maintained throughout the electromagnetic spectrum, with emphasis on systems that employ the latest in electro-optic, millimeter wave, and infrared technology.

The effective employment of US EW capabilities requires timely intelligence on enemy radars and communications. The technical information derived from this intelligence must be programmed into new and existing friendly EW systems to ensure system effectiveness despite enemy efforts to counter or deceive them. Service efforts must be integrated fully.

The Joint Electronic Warfare Center (JEWC) provides comprehensive EW support for force commanders. Drawing on lessons learned from operations and exercises, the JEWC publishes EW and C^3CM information and provides technological support for the development of advanced EW equipment.

Joint and cross-Service EW programs include the Navy-Air Force reprogrammable radar jammer to support air strike forces (AN/ALQ-99); Navy-Air Force High-Speed Antiradiation Missile (HARM); Navy-Air Force Integrated EW System (INEWS), a future integrated self-protection system; Army-Marine Corps-developed expendable VHF communication jammers; and Navy-Air Force airborne self-protection jammer (AN/ALQ-165).



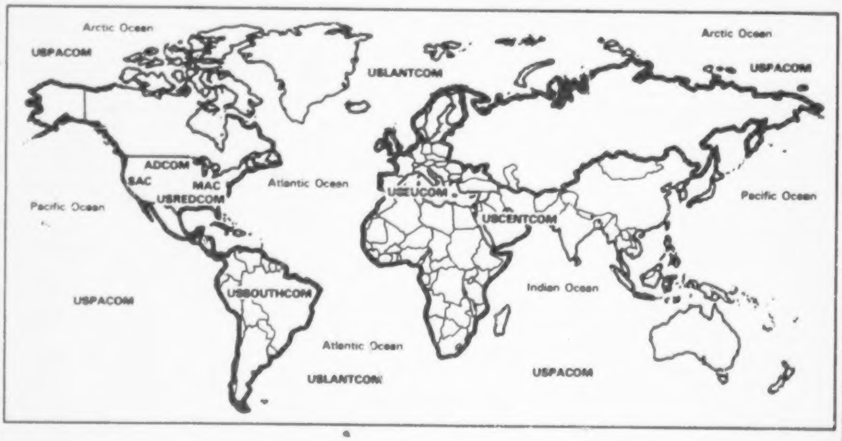
EA-6B PROWLER LAUNCHES

Joint Perspective

Role of the Commanders in Chief

Since 1947, a joint system, independent of the Services, has evolved to command US military forces worldwide. CINCs command the forces assigned to them in peace and war and have regionally or functionally oriented responsibilities. CINC responsibilities also include direct interaction with allied and friendly military forces. Map IV-10 identifies the

Commanders' Areas of Responsibility


Arctic Ocean
USPACOM
USLANTCOM
Arctic Ocean
USPACOM
ADCOM
SAC
MAC
USREDCOM
Atlantic Ocean
USEUCOM
Pacific Ocean
Pacific Ocean
USCENTCOM
Indian Ocean
USPACOM
USSOUTHCOM
Atlantic Ocean
USLANTCOM
USPACOM

As of 1 January 1985

Map IV-10

unified and specified commands and their areas of responsibility.

The major commands are designated as either unified or specified. Unified commands are composed of major forces from two or more Services and have a broad continuing mission to plan and, when necessary, execute military operations in support of US national security objectives. A specified command is one which has a broad continuing functional mission and is usually composed of forces from one Service. The Services are charged with providing forces to the CINCs and supporting those forces. Although the CINCs are not directly responsible for organizing, training, and equipping forces, which are Service responsibilities, they influence these processes through active participation in the DOD resource process.

Joint Doctrine

Joint doctrine—the fundamental principles by which multi-Service forces are employed in support of national objectives—continues to be a concern and responsibility of the Joint Chiefs of Staff. To ensure that US forces have the best available joint approach to the performance of their missions, the JCS have established a program to develop and improve joint doctrine.

A pilot program for decentralized development of joint doctrine has been initiated to evaluate the practicality of assigning to the CINCs the lead responsibility for developing joint doctrine. In support of this effort, USCINCPAC and USCINCLANT are developing joint doctrine for strategic and tactical air support of maritime operations, and USCINCEUR is developing doctrine for theater counterair and follow-on-forces attack. In a related area, USCINCRED has been assigned responsibility for developing operational concepts and joint tactics, techniques, and procedures (JTTP). The goal of this effort is the development of JTTP in parallel with the acquisition of related weapon systems so that JTTP and systems are available simultaneously to operating forces.

Joint Resource Assessment

The Strategic Plans and Resource Analysis Agency (SPRAA), formed in 1984, provides military analyses and recommendations concerning the impact of defense program and budget proposals on the capabilities of the forces in the field. SPRAA is the focal point for examining the resource implications of joint planning issues.

Joint Program Management

In early 1984, the Joint Chiefs of Staff established the Joint Requirements and Management Board (JRMB). The JRMB is charged with examining potential joint military requirements; identifying, evaluating, and selecting candidates for joint development and acquisition programs; providing oversight of cross-Service requirements and management issues; and resolving Service issues that arise after a joint program has been initiated.

Joint Force Development

The Army-Air Force Joint Force Development Process (JFDP), established in 1984, has resulted in a joint effort to design and field the most effective, affordable forces in support of air-land combat operations. The Army and Air Force have identified 31 joint initiatives that will improve the nation's military posture. The two Services have implemented seven initiatives and the remaining ones are to be completed by early 1985, or plans developed for their completion. The Navy has expressed interest in a number of the JFDP initiatives and is joining the cooperative effort. JFDP is an important step in the continuing process to maximize joint combat capabilities.

The Air Force and Navy have undertaken a number of joint initiatives to enhance combined effectiveness in maritime operations and operations ashore. Air Force-Navy efforts have been directed toward increased joint exercises and training, billet exchanges, and research and development.

CHAPTER V. TOPICS OF SPECIAL INTEREST

INTRODUCTION

The preceding chapters addressed US security requirements and major military forces. This chapter outlines the status of arms reduction talks and discusses military space activities, security assistance, defense manpower, international terrorism, peacekeeping operations, and humanitarian assistance.

ARMS NEGOTIATIONS

The United States participates in bilateral and multilateral negotiations on arms control to protect US and allied security interests, build global stability, and promote favorable international relationships. These negotiations are an integral part of the US national security strategy. Equitable and verifiable arms reduction agreements and related negotiations can contribute to security at reduced force levels. Arms control cannot substitute for necessary force modernization. Both efforts are mutually reinforcing elements of our national security and contribute significantly to the enhancement of stability and deterrence.

Any agreement is only as good as the willingness of the signatories to comply with the obligations assumed. Soviet noncompliance with several agreements to which both sides have committed themselves is a continuing matter of concern and must be taken into account in the development of US defense programs and approaches to arms control.

US-Soviet Bilateral Negotiations

On 8 January 1985, the United States and Soviet Union jointly announced agreement to begin new negotiations on a complex of questions concerning space and nuclear arms, both strategic and intermediate-range. The purpose of these new negotiations will be to reach agreements aimed at reducing nuclear arms and strengthening strategic stability.

The United States and Soviet Union were involved in strategic nuclear, intermediate-range nuclear, and antisatellite negotiations prior to 1985. The highlights of these negotiations are presented in the following three sections.

Strategic Arms Reduction Talks

The United States and the Soviet Union began the Strategic Arms Reduction Talks (START) in 1982. Throughout the negotiations, the primary objective of the United States was to achieve a stable balance at significantly reduced levels of nuclear forces (Chart V-1). The US approach to START recognized the

Ballistic Missile Warhead Reductions

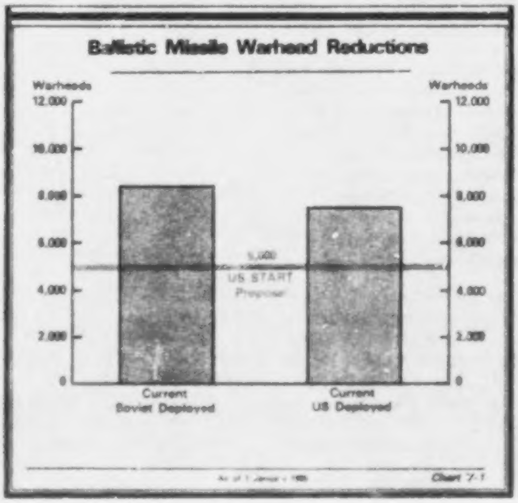


Chart V-1

need to redress the strategic imbalance through force modernization and equitable, verifiable arms reductions. The United States has been most concerned about reducing the levels of destabilizing ballistic missile systems, particularly MIRVed land-based ICBMs, and has been prepared to negotiate limits on other systems as well. To achieve these reductions, the United States introduced a build-down concept that provided a mutual, guaranteed reduction in nuclear systems. This US proposal included provisions for a build-down of ballistic missile warheads and heavy bombers. Round V of the START talks adjourned in December 1983 without Soviet agreement on a resumption date. After that the US and its allies continued to make clear United States' willingness to resume talks.

Intermediate-Range Nuclear Forces Negotiations

The United States initiated INF negotiations in fulfillment of NATO's decision to pursue a dual-track policy of force modernization and negotiated arms reductions. Toward this end, the United States, in close consultation with its allies, formally proposed two draft treaty texts in Geneva. The first, the Zero-Zero Treaty, proposed a worldwide ban on all US and Soviet LRINF missile systems. This proposal required the elimination of all Soviet SS-4, SS-5, and SS-20 missiles in return for the elimination of the NATO PERSHING II missiles and GLCMs. Following the Soviet refusal to consider the Zero-Zero Treaty, the United States tabled an Interim Proposal Treaty calling for equal global levels of warheads deployed on US and Soviet LRINF missiles. In doing so, the United States made clear that its earlier proposal also remained on the table and was the preferred outcome of the negotiations. In September 1983, the United States stated that it would consider a commitment not to offset the entire Soviet global LRINF missile deployments by US deployment of LRINF missiles in Europe. The United States also agreed to consider apportioning any agreed reductions between PERSHING II and GLCM in an appropriate manner.

Despite US efforts to promote progress, the USSR withdrew from the INF talks in November 1983. This withdrawal followed 4 years of Soviet attempts to split the NATO Alliance. Throughout the period of INF negotiations, the Soviets sought to prevent PERSHING II and GLCM deployments while continuing to deploy their own SS-20 missiles. The United States and its allies made clear the US willingness to resume talks.

Antisatellite Negotiations

During the 1978-1979 period, the United States and the Soviet Union held three rounds of ASAT negotiations. The two sides had differing views on the scope of an agreement. Subsequently, the Soviets submitted additional proposals that attempted to restrict use of the space shuttle and other US space activities but failed to specify effective means of verification.

In June 1984, the United States responded positively to the Soviet call for discussions in Vienna. Even though the latest Soviet proposal was broader in scope than judged verifiable, the United States expressed a willingness to meet with the Soviets to discuss and seek agreement on feasible negotiating approaches.

Multilateral Negotiations

Mutual and Balanced Force Reductions

The long-standing negotiations on Mutual and Balanced Force Reductions (MBFR) between NATO and the Warsaw Pact have t[illegible]bjective of achieving manpower parity at low[illegible]vels between East and West in the NATO Centr[illegible] Region, a goal that is to be achieved with undiminished security for these alliances. Draft treaties have been tabled by both sides, but they remain far apart on two fundamental issues — initial force levels and verification of manpower. Eastern intransigence regarding the need for agreement on initial force levels has made it questionable whether reductions would result in parity. In early 1984, the United States and its allies proposed a modification to the 1982 Western draft treaty to break the impasse on initial force levels. This proposal would require data only on combat and combat support forces within an acceptable range of Western estimates prior to treaty signature. Because of this lessened initial requirement, the West continues to press for a strengthened verification package.

Conference on Disarmament in Europe

The Conference on Confidence and Security-Building Measures and Disarmament in Europe, commonly known as the Conference on Disarmament in Europe (CDE), began in early 1984. The conference was mandated by the Conference on Security and Cooperation in Europe (CSCE), and all 35 CSCE participating states are taking part. The CDE mandate is to develop confidence and security-building measures (CSBMs) in Europe that will clarify intentions, reduce the chance of miscalculation during crises, and reduce the risk of surprise attack. Proposals have been put forward by NATO, the Soviet Union, and other parties. The NATO proposal has focused on militarily significant and verifiable CSBMs; the Soviet proposal has emphasized politically oriented declaratory measures. To date, little progress has been made in the negotiations. The CDE must report back to the next CSCE followup conference in Vienna in late 1986.

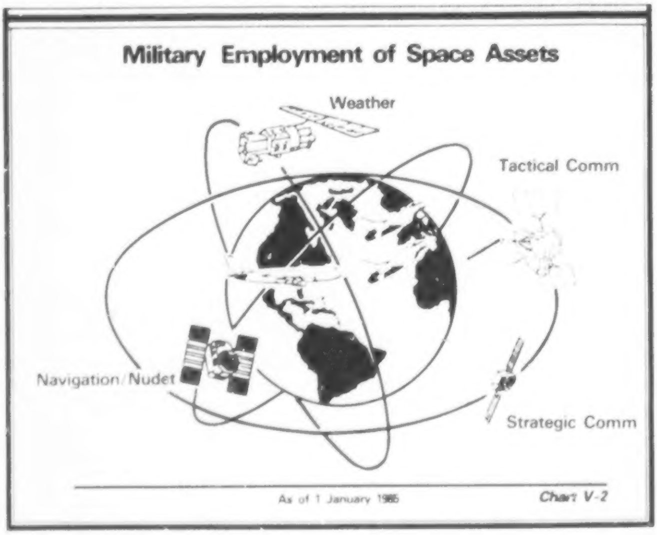
Other Multilateral Negotiations

Representatives of the JCS participate in other multilateral forums, including the 40-nation Conference on Disarmament (CD). High on the list of CD priorities are the achievement of a comprehensive nuclear test ban (CTB) and a comprehensive chemical weapons ban. As a result of the suspension of negotiations among the United States, United Kingdom, and Soviet Union on a CTB, some members favor negotiating a comprehensive nuclear test ban within the CD. Such testing, however, remains essential to the maintenance of a credible nuclear deterrent. Therefore, the long-term goal of a CTB must continue to be viewed in the context of broad, deep, and verifiable arms reductions; improved verification capabilities, expanded confidence-building measures, and maintenance of a modern, effective deterrent force.

In 1984, the United States proposed a draft treaty on a total chemical weapons ban in the Conference on Disarmament. Soviet and surrogate violations of the Geneva Protocol of 1925 and the Biological and Toxin Weapons Convention of 1972 justify continued US insistence on effective verification of a total ban of chemical weapons. The Soviets consider verification and compliance provisions of the US draft treaty as intrusive and unacceptable. The Soviets hold that verification should be accomplished through national technical means and self-inspection. An unverifiable chemical weapons ban would seriously endanger US and allied security. Therefore, the United States must establish and maintain an effective chemical retaliatory capability until a verifiable ban can be concluded.

MILITARY SPACE ACTIVITIES

Recognizing the increasing role of space in supporting national interests, the United States has developed a comprehensive space policy for both civil and military uses. Space-based systems have clearly demonstrated their value in support of the planning and execution of US military operations, thereby contributing to deterrent and defense capabilities. Chart V-2 depicts some of the current military uses of space. In some cases, space systems provide the only mili-



Military Employment of Space Assets

As of 1 January 1985

Chart V-2

tary access to denied areas. The NCA and US military forces depend heavily upon space systems in peacetime, crisis, and conflict.

Missions

Both the United States and the Soviet Union depend on space systems for critical operational support. In the past, such support has been primarily in the area of information gathering and transmittal. Technical advances by the Soviets could lead to the development of effective space-based weaponry which would place at risk critical US satellite systems. The United States must ensure that US space assets can function in a hostile environment. An ASAT system, consisting of weapons, a surveillance system, and a command and control system, will be key to the development of required US space defense capabilities in the near term.

Support Missions

Support missions contribute to operational capabilities, but do not place weapons on targets. These missions include communications, terrestrial surveillance, navigation and positioning, meteorology, oceanography, mapping, and search and rescue. Systems now operational or under development to perform these missions include the Military Strategic Tactical Relay System, Fleet and Lease Satellite Communication Systems, Defense Meteorological Satellite Program, Global Positioning System, and Nuclear Detonation Detection System.

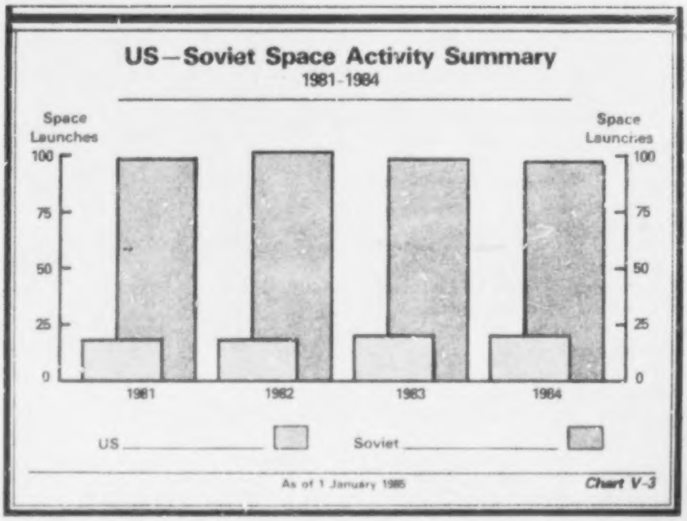
Other support missions include prelaunch preparations and activities involved with deploying and sustaining space systems. Centers being developed and improved to support such missions include a Consolidated Space Operations Center, ground facilities for the space shuttle, and the Satellite Control Facility and its associated ground stations. To overcome dependence on foreign-based ground stations, the United States is developing the capability to process information on spacecraft and perform the necessary relay. Systems being developed to deploy satellites include upper stages and expendable launch vehicles. Systems under development to transfer satellites from a low orbit to high orbit include the Inertial Upper Stage and CENTAUR Upper Stage. The United States is also pursuing an assured launch capability by developing an expendable launch vehicle which would serve as a hedge against unforeseen technical and operational problems affecting the Space Transportation System, and provide an alternate means of supporting satellite launches during crisis situations.

SHUTTLE AND TRANSPORT OVER
VANDENBERG SPACE LAUNCH COMPLEX

Soviet Space Efforts

The Soviets continue their vigorous space efforts. The Soviets still lag behind the United States in many important areas of space technology, but have a slight edge in space medicine, effects of weightlessness, and other human endurance areas. The Soviets' annual space budget growth rate of 15 percent has exceeded their overall military budget growth rate in recent years. Most of their space effort is purely military, and much of the remainder involves joint civil-military programs. The Soviet logistic base, which includes active launch pads, mission control sites, and space-support naval vessels, is substantial. The Soviets also have a significant production capability and large inventory of satellites and launch vehicles that enable them to place large numbers of satellites in orbit quickly. The Soviets have sustained an average annual launch rate of approximately 100 space launch vehicles during the past few years. Launch rate differences between the United States and the Soviet Union can be explained partially by the Soviet need to replace satellites more frequently because of the shorter average lifetime of its satellites. The Soviets continue to make important technical advances in their satellite programs. Chart V-3 shows a summary of US and Soviet space activity for 1981-1984.

The USSR has increased its advantage over the United States in man-days in space to a 3 to 1 margin. With SALYUT 7 manned for extended periods, the Soviets have already demonstrated the capability to



US—Soviet Space Activity Summary
1981-1984

As of 1 January 1985

Chart V-3

establish a manned space station. Research and development, reconnaissance, the operation of weapons and sensors, and other military missions could be performed from such stations. The introduction of a Soviet reusable manned orbital ferry vehicle is expected by the late 1980s. The United States launched such a vehicle in 1981.

The Soviets are developing two new launch systems. One system will support the manned orbital ferry and the other a manned space plane. The Soviets are also continuing to improve their space-based reconnaissance systems.

Some existing Soviet space assets pose a threat to US satellites and ground forces. The Soviet operational ASAT system is designed to engage low-altitude satellites. Additionally, their ABM and ICBM systems have an inherent ASAT capability which could augment the coorbital system. Some US satellites may also be vulnerable to interference from jammers or damage from ground-based systems.

Soviet space systems have application during crises and situations short of general nuclear war because they provide command authorities with order of battle, warning, target location, and battle damage assessment information.

US Command Arrangements for Space

The Soviet emphasis on space as a warfighting medium and the increasing US reliance on space systems have caused the United States to reevaluate its military command structure for supporting space operations. In 1982, the Air Force formed a Space Command to consolidate its operational space activities. For the same reason, the Navy established the Naval Space Command in 1983. These two commands could provide the initial components of a structure to support the new unified command for space, which will be established in 1985. In 1984, the JCS established the Joint Planning Staff for Space (JPSS) as the focal point for space policy, doctrine, and strategy. JPSS is responsible for analyzing the responsiveness of space systems and their mission support to the unified and specified commands; JPSS analyses will aid decisionmaking with regard to the formation of the new unified command. In addition, the Army has established a structure to manage Army space-related activities for support of ground combat activities.

SECURITY ASSISTANCE

Security assistance programs contribute to US objectives by assisting allies and friends to meet their defense needs and by supporting collective security efforts. Security assistance is an essential element of foreign policy and a way to build positive government-to-government relations. By sharing costs and effort, many countries can achieve a level of mutual security unattainable independently. By strengthening US allies and friends, security assistance programs also serve as an economy-of-force measure which allows the United States to concentrate its available forces in areas of greatest threat. For these reasons, security assistance is an integral part of US military strategy.

Security Assistance Objectives

The primary military objectives of security assistance are to assist countries in preserving their independence; promote regional security; help obtain base rights, overseas facilities, and transit rights; ensure access to critical raw materials; and provide a means to expand US influence.

Elements of Security Assistance

The major components of security assistance are the Foreign Military Sales (FMS) Program, which includes the FMS Credit (FMSCR) Program; Military Assistance Program (MAP); and International Military Education and Training Program (IMETP).

Foreign Military Sales Program

The FMS Program enables eligible governments to purchase defense equipment, services, and training from the United States on a cash or credit basis. This year, the FMSCR Program has been included in the budget and all loans will be made directly by the US Government to recipient countries instead of through commercial banks. For selacted countries, a portion of this credit will be available as low-interest loans. The amount of the proposed FY 1986 security assistance budget allocated to FMSCR is 85 percent.

The Military Assistance Program

This grant program provides an account for designated countries that may be used to obtain defense equipment and selected services. MAP funds allow certain economically disadvantaged countries to improve their security and ability to contribute to collective defense. The FY 1986 MAP proposal of $949 million represents 14 percent of the total security assistance program budget request and an increase of 18 percent over the FY 1985 approved program. This increase will allow the United States to assist certain needy countries more effectively in improving their security and ability to contribute to collective defense.

SECURITY ASSISTANCE TRAINING

The International Military Education and Training Program

The IMETP provides training to foreign military and certain foreign government-sponsored civilians on a grant basis. IMETP training consists of formal courses, orientation tours, and on-the-job training. This program has greatly expanded US contacts with foreign governments, whose representatives are trained by US personnel. IMETP students frequently assume leadership and management roles in their armed forces and elsewhere in their governments. The FY 1986 IMETP proposal is about 1 percent of the total military security assistance program. Chart V-4 depicts expenditures and numbers of students that have attended US military-sponsored training under IMETP over the

Worldwide IMETP Expenditures
Students Trained in US

FY	Expenditures* (in millions)	Students Trained	Cost Per Student
80	24.9	3546	[illegible]
81	28.7	4836	5936
82	46.2	6317	7314
83	46.0	6861	6705
84	52.8	5967	8856

* Actual dollars not adjusted for inflation

As of 1 January 1985 Chart V-4

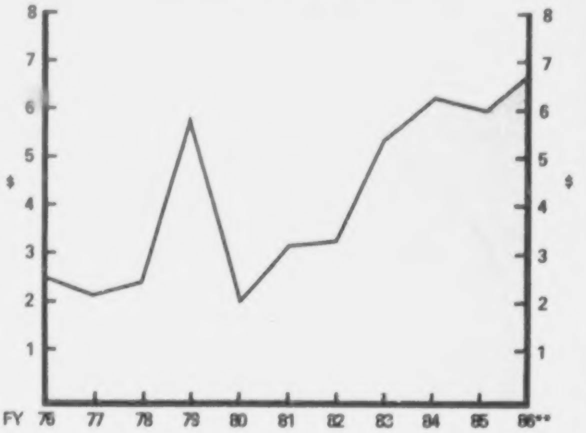
past 5 years. In FY 1984, modernization programs required that an increased percentage of IMETP funds be used to support the training of pilots and similarly skilled technical personnel. This requirement has resulted in a higher average cost per student. This program enhances collective defense at relatively low cost to the United States by providing urgently required training to foreign forces.

Security Assistance Initiatives

Over the past few years, legislative initiatives have been introduced to increase the effectiveness of the security assistance program. These initiatives were designed to provide more flexibility in planning, production, and delivery in order to allow the United States to be more responsive to nations suddenly threatened by overt hostilities, e.g., Chad, Lebanon, and El Salvador. One initiative that has been proposed is to increase the capitalization level for the Special Defense Acquisition Fund. This fund was established to improve US responsiveness to anticipated FMS needs by ordering in advance high-demand items that have long-lead-time procurement schedules. Such an increase would allow more timely acquisition of these items.

The FY 1986 security assistance budget represents an increase over the FY 1985 budget as a result of requirements in areas of the Third World where Soviet presence has increased (Chart V-5). The budget

Security Assistance Budget*
(Current $ in Billions)



* FMSCR, IMET, and MAP

** Admin-proposed

As of 1 January 1985

Chart V-5

request reflects a balanced consideration of US objectives and the needs of friends and allies (Chart V-6).

Soviet Security Assistance

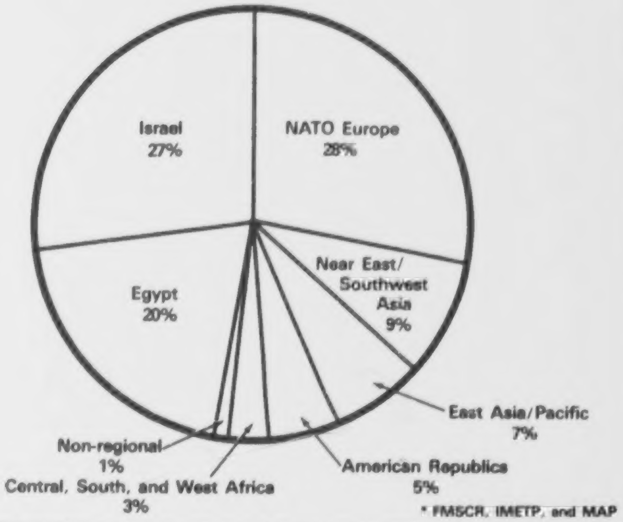
Weapon transfers continue to be an important Soviet means of projecting influence and disrupting regional security. Over the past 5-1/2 years, Soviet arms sales agreements with the Third World have totaled over $55 billion. Recipients have been attracted by favorable financial terms, quick delivery, and, in some cases, advanced weaponry. In recent years, the sale of military equipment has become a more important source of hard currency and commodities for the Soviet Union. In several instances, Soviet weapon transfers have provided a means of acquiring base access rights abroad. Weapon transfers also provide an entree for Soviet advisors into the recipient's military establishment, allowing them to exert influence over local leaders and policies through control of training, maintenance and spare parts, and the sale of newer equipment.

Since 1955, over 69,000 military personnel from less-developed countries have been trained in the Soviet Union and Eastern Europe. In 1984 approximately 19,000 Soviet and East European military personnel were stationed in nearly 40 non-Warsaw Pact countries (excluding Afghanistan and Cuba), where they played a central role in organizing, training, and influencing client armed forces.

The Soviets continue to provide a significant amount of military aid to countries in Central America and the Caribbean Basin (Chart V-7), as well as Africa (Chart V-8). The Soviets also view the Middle East, northern Africa, and Southwest Asia as areas of

Security Assistance Budget*

FY 1986 Administration Proposed Strategic Apportionment

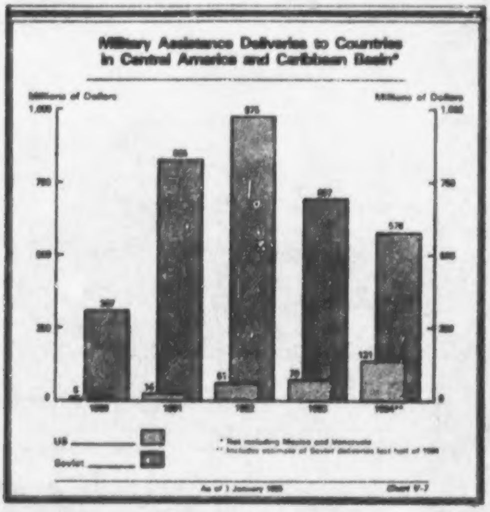


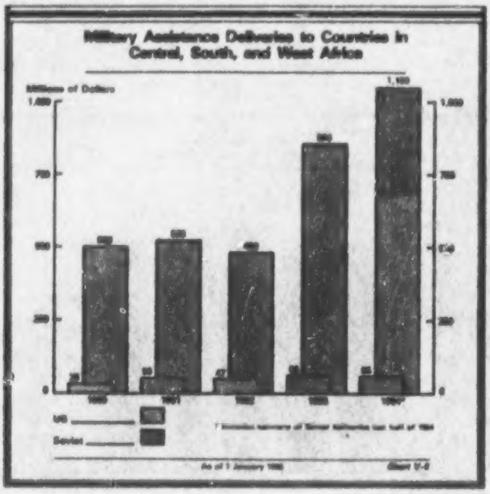
* FMSCR, IMETP, and MAP

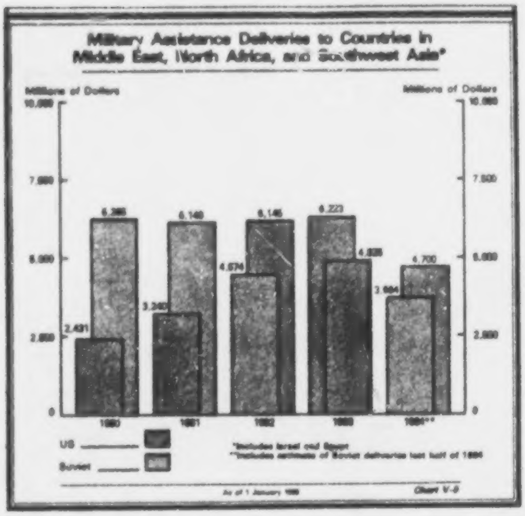
As of 1 January 1985

Chart V-6

great strategic importance and have maintained an especially high level of military assistance there (Chart V-9). These charts compare Soviet military assistance deliveries with US programs.







Military Assistance Deliveries to Countries in Middle East, North Africa, and Southwest Asia*

*Includes Israel and Egypt
**Includes estimate of Soviet deliveries last half of 1984

As of 1 January 1985

Chart V-9

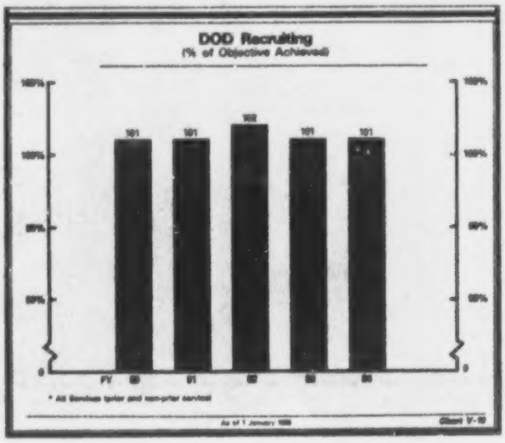
DEFENSE MANPOWER

Overview

People are the foundation of the US military posture. The number of uniformed personnel has increased since FY 1983 in response to the modest growth in manpower required to maintain US forces at the necessary level of readiness and field new weapon systems. Personnel readiness has also improved over the past year, but such readiness is a perishable asset, sensitive to small shifts in resources.

Recruitment

During 1984, the DOD achieved its military manpower quantitative objectives (Chart V-10) and quality accession requirements. All Services are currently



DOD Recruiting
(% of Objective Achieved)

* All Services (prior and non-prior service)

As of 1 January 1985

Chart V-10

competing successfully with the civilian sector, except for a few high-technology skills that remain difficult to fill. The number of recruits who have high school diplomas remains high, as shown in Chart V-11. The attainment of future recruiting goals will be more difficult because of such variables as the improving economy, declining recruiting pool, and relative competitiveness of the enlistment package being offered.

Retention

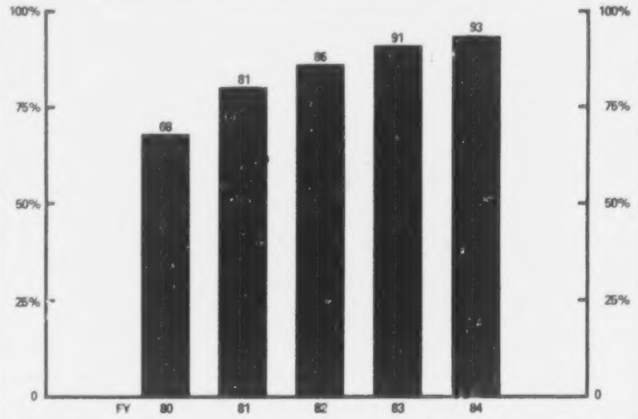
The retention of quality people is essential to maintaining required force levels. Reenlistment rates for first-term and career personnel have improved over the past few years (Chart V-12). These high retention rates must be maintained to provide the proper mix of mid- and senior-level leaders, particularly those with skills associated with new weapon systems. In view of continued competition between the Services and civilian sector for technically skilled or trainable people, sustained support must be given to efforts that ensure a competitive benefits program, to include pay comparability, enhanced quality of life, and other personnel programs that impact on the ability to meet force requirements.

Selected Reserve

Significant manning improvements are occurring in the Reserve components. The primary element of the Reserve forces is the part organized and trained as units, the Selected Reserve (SELRES). The SELRES includes the Army National Guard, Army Reserve, Naval Reserve, Marine Corps Reserve, Air National Guard, and Air Force Reserve. The SELRES also includes some personnel who train with active units and are preassigned to augment them upon mobilization. The Individual Mobilization Augmentee (IMA) Program is important because it assigns qualified reservists to key positions within active units upon mobilization. The IMA program provides funding for personnel to train for at least 2 weeks per year with their designated active units. The readiness of these units has increased because of this program.

The previous decline in SELRES strength was reversed in FY 1979 and has shown steady improve-

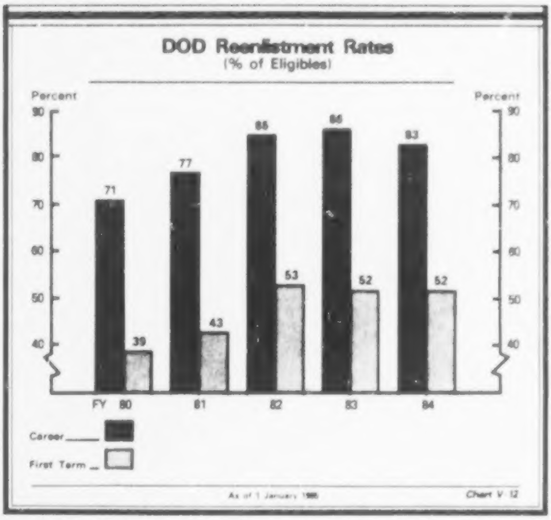
High School Diploma Graduates*
(All Services)



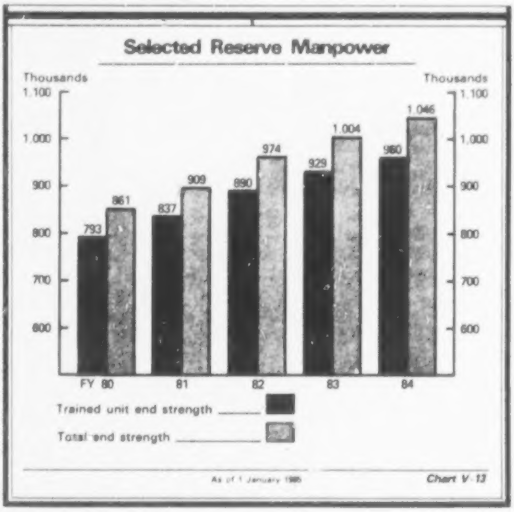
* Non prior service

As of 1 January 1985

Chart V-11



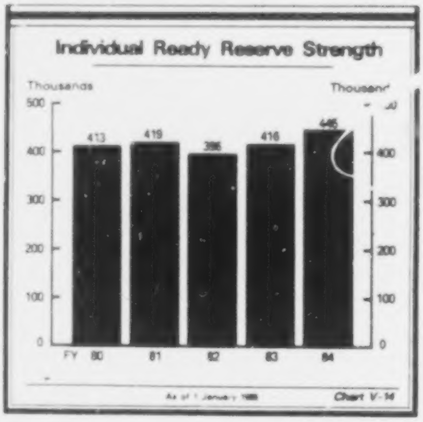
ment through FY 1984 (Chart V-13). Factors contributing to this turnaround include significant pay increases in FY 1981 and FY 1982, introduction of cash bonuses and educational assistance incentives, assignment of full-time recruiters, increased advertising, and improvements in Reserve personnel management. Greater use of training and administration personnel has helped to improve SELRES personnel



management. The SELRES will continue to require emphasis on programs that support recruiting and retention goals.

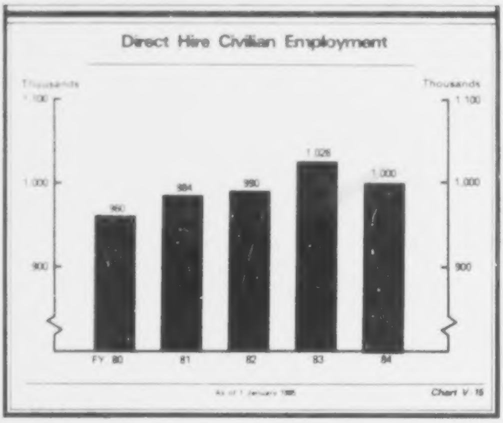
Individual Ready Reserve

The Individual Ready Reserve (IRR) is the most important source of trained individual manpower for an emergency situation which requires mobilization. IRR personnel would be used to bring active and SELRES units to full strength initially, then support the personnel replacement system. The IRR has no established manning level. The need for IRR personnel is situation-dependent and can be determined only after all sources of trained military manpower have been matched against wartime requirements. Since current IRR strength is inadequate for some potential wartime requirements, legislation has been enacted that authorizes the Services to extend the military service obligation from 6 to 8 years for new recruits and establish IRR bonus programs. IRR strength continued its upward trend in FY 1984 as shown in Chart V-14. Nevertheless, increased retention in the active force and SELRES will reduce the flow of personnel into the IRR. Other initiatives will be required to improve IRR manning and effectiveness, to include an extended military service obligation with an IRR obligation upon reenlistment, and periodic refresher training for selected IRR personnel.



Civilian Employees

Civilians perform a major share of the support functions within DOD. Only about 4 percent work in headquarters management positions; the remainder work in activities such as supply and repair depots, shipyards, communications centers, base operations, and medical care facilities. In the past, the failure to provide sufficient civilian manpower degraded readiness by increasing equipment repair and supply backlogs, and reducing services essential to the maintenance of quality living conditions for military personnel. Shortages of civilian personnel led to the assignment of military personnel to jobs that can be performed more efficiently by civilians, diverting military personnel unnecessarily from combat-related tasks. The civilian employee strength of 1 million is down from FY 1983, but contines to reflect an upward trend (Chart V-15).



As a result of fiscal constraints and other policies civilian growth between FY 1986 and FY 1990 is expected to be held to about 21 000. This level of growth will require pay and benefits comparable to the private sector to attract and retain vital civilian employees. Greater competition for talent in the marketplace will make retention of senior civilian managers and technicians increasingly difficult.

Quality of Life

The enlistment and retention of a quality force has been a key factor in the improvement of military personnel readiness in recent years. The challenge that lies ahead is to ensure that gains in force quality are not lost. Strong support for quality of life programs and competitive compensation is required. Long-term economic security remains of paramount concern to service members and their families.

It is essential that military pay be adjusted at rates comparable to the general wage growth in the economy. If military pay levels are allowed to lag, as occurred in the mid-to-late 1970s, there could be a corresponding downturn in the recruitment and retention of a quality career force. Confidence in the military compensation system could be restored by implementing a pay adjustment mechanism such as the Employment Cost Index. This indexing would provide predictability and economic stability for service members and encourage a long-term commitment to the Armed Forces. In addition, compensation incentives in the form of bonuses and special pays will continue to be essential to the retention of highly skilled personnel and supervisors in the career force.

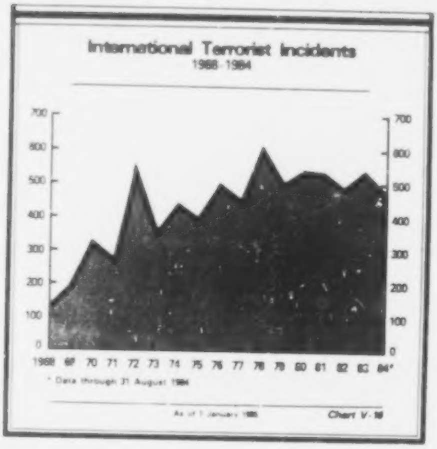
The military retirement system remains a powerful retention mechanism. This system functions as a force management tool by providing the proper mix of youth and experience. Further, the system provides a mobilization base of experienced personnel and serves as an offset for sacrifices inherent in a military career. Proposals to change the military retirement pay system must be weighed carefully. Any proposal must recognize the purposes of the military retirement system, its role in the long-term economic security of service members, and the true costs of the system as compared to alternatives. Proposals that significantly change the retirement system of the civilian work force should be analyzed in a similar way.

Other quality of life programs with significant influence on force quality and retention include support programs such as health care, commissaries, adequate reimbursement for permanent change of station moves, and those addressing living and working conditions.

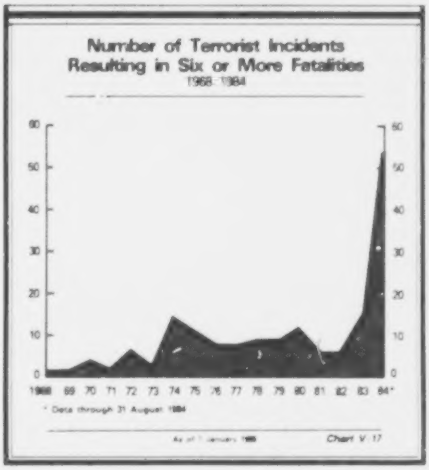
INTERNATIONAL TERRORISM

The use of terrorism against the United States and other nations continues to pose a formidable challenge. More than 50 percent of all recorded international terrorist events have been directed against US interests, mostly against official US presence overseas. US interests in Europe and the Middle East have often been targeted by terrorists. These areas, along with Latin America, will probably remain the focus of the greatest number of terrorist activities against US interests.

The threat from international terrorism has never been greater. As shown in Chart V-16, international terrorism has generally increased since official statistics were first compiled in 1968. The lethality of terrorist violence has increased markedly, particularly during the past 5 years (Chart V-17). The 1983 and 1984 bombings of the US Embassy in Lebanon, 1983 bombing of the Marine headquarters in Lebanon, and bombings of the US Embassy and other facilities in Kuwait illustrate the increased destructiveness of terrorism resulting from relatively simple means and techniques. In addition to the renewed activity of terrorists



indigenous to countries in Western Europe, the threat is growing from Muslim transnational groups which originate in the Middle East and are influenced by Iran, Libya, and Syria. These groups pose a significant threat to US interests.



Future terrorism will likely be more lethal and may be more frequent. More sophisticated weapons and tactics will probably be employed by terrorists. International connections among terrorists will probably increase. State support for wars of national liberation and international terrorist organizations will be a special concern. Support from the Soviet Union, North Korea, Cuba, and their allies and the provision of financial aid, weapons, and training from Syria, Iran, Libya, and the People's Democratic Republic of Yemen will likely continue. Terrorists may or may not be centrally controlled by their patrons. Nevertheless, the instability they create in industrialized Western and Third World nations undermines the security interests of the United States and its allies.

During the past year, intelligence collection has been increased against groups and individuals involved in international terrorism. This increased intelligence effort is designed to provide timely warning to help deter terrorist acts against US interests and those of friends and allies, and contribute to a heightened security posture in order to prevent the execution of such planned acts. The Services have undertaken efforts to confront the growing terrorist problem, including threat-awareness training and physical security programs. The CINCs have also taken steps to strengthen joint planning for defense against terrorist actions. The US Armed Forces have also been working closely with non-DOD and host-nation security forces to ensure maximum protection of US personnel, dependents, and facilities.

MIDDLE EAST PEACEKEEPING OPERATIONS

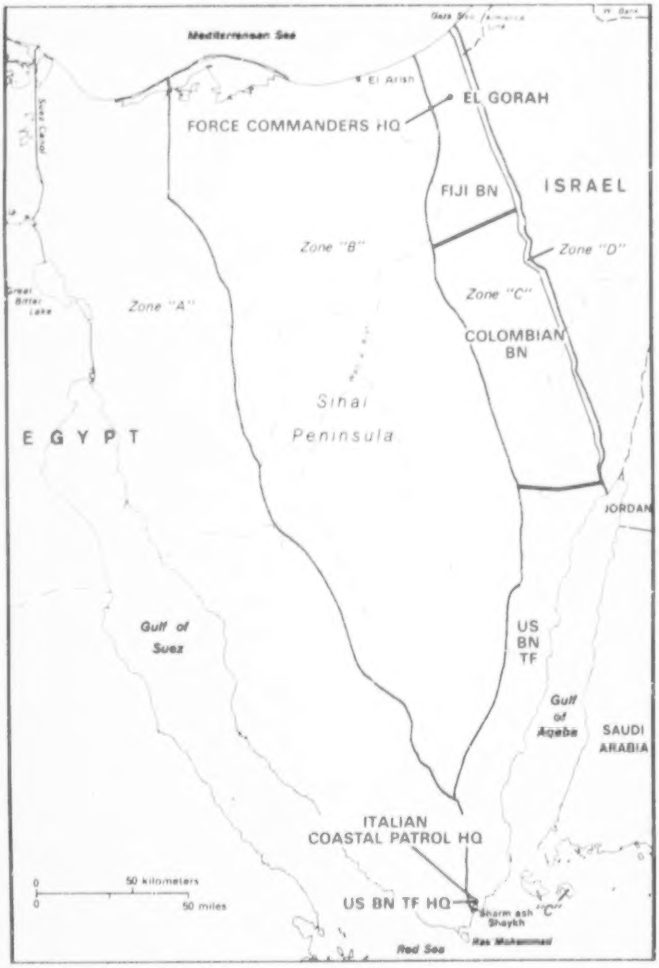
The United States participates in peacekeeping activities in the Middle East that contribute to regional stability. These activities currently include the Multinational Force and Observers (MFO) in the Sinai and the United Nations Truce Supervision Organization (UNTSO).

Multinational Force and Observers

The 1979 Egyptian-Israeli Peace Treaty envisioned that the United Nations (UN) would extend the mandate for peacekeeping forces then in the Sinai to oversee the treaty's security provisions. In light of the inability of the UN to provide for the Sinai mission, a protocol was added to the treaty that established the MFO in 1982. The MFO's mission is to supervise implementation of the treaty annex on security arrangements and to employ its best efforts to prevent violation of the treaty's terms.

US CONTINGENT MFO

Multinational Force and Observers in the Sinai Peninsula


Mediterranean Sea
Gaza Strip
Armistice Line
W. Bank
El Arish
EL GORAH
FORCE COMMANDERS HQ
Suez Canal
FIJI BN
ISRAEL
Zone "B"
Zone "D"
Great Bitter Lake
Zone "A"
Zone "C"
COLOMBIAN BN
Sinai Peninsula
EGYPT
JORDAN
Gulf of Suez
US BN TF
Gulf of Aqaba
SAUDI ARABIA
ITALIAN COASTAL PATROL HQ
0
50 kilometers
0
50 miles
US BN TF HQ
Sharm ash Shaykh
"C"
Ras Mohammed
Red Sea

As of 1 January 1985

Map V-1

The MFO is a 2,500-man force composed of 3 infantry battalions; logistic, aviation, coastal patrol, and communications support elements; and civilian observers. The United States contributes an infantry battalion, the logistic support unit, a staff element, and civilian observers. Fiji, Colombia, Uruguay, Australia, New Zealand, France, Italy, the Netherlands, and the United Kingdom also provide contingents. Norway currently provides the force commander and his personal staff. The Protocol to the Egyptian-Israeli Treaty divided the Sinai into four zones (Map V-1). Egyptian forces and installations are located in Zones A and B; Israeli forces and installations are in Zone D. The MFO operates checkpoints, observation posts, and reconnaissance patrols in Zone C and ensures freedom of navigation through the Strait of Tiran. The MFO also provides verification of authorized forces and installations in all zones. No termination date has been set for the MFO, but participation by US forces is subject to yearly review by Congress.

UN Truce Supervision Organization

The United States has participated in UNTSO since its inception. Since 1973, the United States has provided 36 military personnel to UNTSO, a peacekeeping organization in the Middle East consisting of 289 unarmed military observers. UNTSO was organized to maintain the cease-fire ordered by the UN Security Council in 1949 among Jordan, Syria, Egypt, Lebanon, and Israel. UNTSO serves as the focal point for all UN Middle East peacekeeping operations and has an indefinite mandate.

HUMANITARIAN ASSISTANCE

As in past years, US Armed Forces participated in disaster relief efforts and provided humanitarian assistance to friends and allies. These operations, conducted on a reimbursable basis or incidental to exercises directed or coordinated by the JCS, have included airlift of disaster relief materials such as medical supplies, tentage, and food; medical civic action projects; and assistance in developing distribution systems for emergency supplies. The United States is currently using military assets on a reimbursable basis to support African famine relief. Space-available airlift support is being provided to transport donated medical supplies to Central America under the provisions of recently enacted legislation.

GLOSSARY

AAA — antiaircraft artillery
AAW — antiair warfare
ABM — antiballistic missile
ADCOM — Aerospace Defense Command
AFAP — artillery-fired atomic projectile
ALCM — air-launched cruise missile
ANMCC — Alternate National Military Command Center
ANZUS — Australia, New Zealand, United States
ASARS — Advanced Synthetic Aperture Radar System
ASAT — antisatellite
ASM — air-to-surface missile
ASW — antisubmarine warfare
ATB — Advanced Technology Bomber
ATGM — antitank guided missile
AWACS — Airborne Warning and Control System
BMD — ballistic missile defense
BMEWS — Ballistic Missile Early Warning System
BMP — amphibious armored infantry combat vehicle (Soviet)
BN TF — Battalion Task Force
C^3 — command, control, and communications
C^3CM — command, control, and communications countermeasures
CD — Conference on Disarmament
CDE — Conference on Disarmament in Europe
CEP — circular error probable
CGS — CONUS Ground Station
CINCs — commanders in chief of the unified and specified commands
COBRA DANE — space surveillance sensor
CONUS — continental United States
CR — combat rescue
CRAF — Civil Reserve Air Fleet
CSBM — confidence and security building measures
CSCE — Conference on Security and Cooperation in Europe
CTB — comprehensive test ban
CVBG — aircraft carrier battle group
CW — chemical warfare
CY — calendar year
DCA — dual-capable aircraft
DCS — Defense Communications System
DDC — Data Distribution Center
DEW — Distant Early Warning
DIVAD — Division Air Defense
DOD — Department of Defense
DSCS — Defense Satellite Communications System
DSP — Defense Support Program
ECCM — electronic counter-countermeasures
ECM — electronic countermeasures
EHF — extremely high frequency
ELF — extremely low frequency
EW — electronic warfare
FMS — Foreign Military Sales
FMSCR — Foreign Military Sales Credit
FY — fiscal year

GLCM — ground-launched cruise missile
GNP — gross national product
HARM — High-Speed Antiradiation Missile
HQ — headquarters
HTKP — hard-target kill potential
ICBM — intercontinental ballistic missile
IMA — individual mobilization augmentee
IMETP — International Military Education and Training Program
INEWS — Integrated Electronic Warfare System
INF — intermediate-range nuclear forces
IOC — initial operational capability
IR — infrared
IRR — Individual Ready Reserve
JCS — Joint Chiefs of Staff
JDS — Joint Deployment System
JEWC — Joint Electronic Warfare Center
JFDP — Joint Force Development Process
JOPES — Joint Operation Planning and Execution System
JPSS — Joint Planning Staff for Space
JRMB — Joint Requirements and Management Board
JSOA — Joint Special Operations Agency
JSTARS — Joint Surveillance and Target Attack Radar System
JTIDS — Joint Tactical Information Distribution System
JTTP — joint tactics, techniques, and procedures
JVX — advanced vertical lift aircraft
km — kilometers
kt — kilotons
LAV — Light Armored Vehicle
LCAC — Landing Craft, Air-Cushion
LOC(s) — line(s) of communication
LRINF — longer range intermediate-range nuclear forces
LVT — landing vehicle, tracked
LVT SLEP — Tracked Landing Vehicle Service Life Extension Program
MAC — Military Airlift Command
MAF — Marine amphibious force
MAGTF — Marine air-ground task force
MAP — Military Assistance Program
MBFR — Mutual and Balanced Force Reductions
MFO — Multinational Force and Observers
MILSTAR — Military Strategic Tactical Relay
MIRV — multiple, independently targetable reentry vehicle
MLRS — Multiple-Launch Rocket System
mm — millimeter
MPF — multipurpose facility
MPS — Maritime Pre-positioning Ships
mt — metric ton; megaton
MTM/D — million ton-miles per day
NATO — North Atlantic Treaty Organization
NAVSPECWAR — Navy Special Warfare
NCA — National Command Authorities
NCMC — NORAD Cheyenne Mountain Complex
NDRF — National Defense Reserve Fleet
NEACP — National Emergency Airborne Command Post
nm — nautical mile

NMCC — National Military Command Center
NMCS — National Military Command System
NORAD — North American Aerospace Defense Command
NSNF — nonstrategic nuclear forces
NUDET — nuclear detonation detection
NWS — North Warning System
OBU — Ocean Surveillance Information System Basestone Upgrade
OGS — overseas ground station
OJCS — Organization of the Joint Chiefs of Staff
OTHB — over-the-horizon backscatter
PARCS — Perimeter Acquisition Radar Attack Characterization System
PAVE PAWS — phased-array missile warning system
PLRS — Position Location Reporting System
POL — petroleum, oils, and lubricants
POMCUS — pre-positioning of materiel configured to unit sets
PRC — People's Republic of China
psi — pounds per square inch
PSYOP — psychological operations
R&D — research and development
RECCE — reconnaissance
REFORGER — Return of Forces to Germany
ROK — Republic of Korea
RRF — Ready Reserve Force
RV — reentry vehicle
SAC — Strategic Air Command
SAG — surface action group
SAM — surface-to-air missile
SATCOM — satellite communication
SCP — Secure Conferencing Project
SDI — Strategic Defense Initiative
SEAL — Sea, Air and Land
SELRES — Selected Reserve
SINCGARS — single channel ground-airborne radio system
SLBM — submarine-launched ballistic missile
SLCM — sea-launched cruise missile
SLEP — Service Life Extension Program
SLOC(s) — sea line(s) of communication
SNA — Soviet Naval Aviation
SNDV — strategic nuclear delivery vehicles
SNF — short-range nuclear forces
SOF — special operations forces
SOSUS — Sound Underwater Surveillance System
SPRAA — Strategic Plans and Resource Analysis Agency
SPS — simplified processing station
SRINF — shorter range intermediate-range nuclear forces
SSBN — nuclear-powered ballistic missile submarine
SSN — nuclear-powered attack submarine
START — Strategic Arms Reduction Talks
SVIP — Secure Voice Improvement Program
TAH — hospital ship
TARP — tactical air reconnaissance pod
TFW — tactical fighter wing
TLAM/N — TOMAHAWK Land Attack Cruise Missile (Nuclear)
TOW — tube-launched, optically tracked, wire-guided missile

TW/AA — tactical warning and attack assessment
UN — United Nations
UNTSO — UN Truce Supervision Organization
USCENTCOM — US Central Command
USCINCCENT — US Commander in Chief, Central Command
USCINCEUR — US Commander in Chief, European Command
USCINCLANT — US Commander in Chief, Atlantic Command
USCINCPAC — US Commander in Chief, Pacific Command
USCINCRED — US Commander in Chief, Readiness Command
USCINCSO — US Commander in Chief, Southern Command
USEUCOM — US European Command
USLANTCOM — US Atlantic Command
USPACOM — US Pacific Command
USREDCOM — US Readiness Command
USSOUTHCOM — US Southern Command
USSR — Union of Soviet Socialist Republics
VHF — very high frequency
VLS — Vertical Launch System
VSTOL — vertical/short takeoff and landing
VTOL — vertical takeoff and landing
WIS — WWMCCS Information System
WRSA — war reserve stock for allies
WWMCCS — Worldwide Military Command and Control System

INDEX

A

Acquisition improvements 41
Active forces 3
Africa 399, 463
Air defense interceptor aircraft deployments 488
Airlift forces 526
Aliens, enlistment of 129
Alliances, resurgence of 32
Allied/Soviet presence in Southwest Asia 505
Allied support 64
Allies and decoupling 159
Allies, unity and cohesion among 121
Areas of concern, Middle East/Southwest Asia 504
Arms control and ABM treaty 149
Arms negotiations 535
Arms reduction agreement, verifiable 65
Arms reductions and related diplomatic priorities 222
Audits:
  Efficient 69
  Savings from major 26

B

B-1B, increased production of 160
Ballistic missile warhead reductions 535
Base closures 13
  Procedures, streamline 101
Biennial budgeting 101
Binary chemical modernization 135
Budget:
  Defense, cutting the 72
  Freeze impossible 67
  Increase, defense 66
Overview, authority and outlays 28, 29, 30
  Reductions to fiscal year 1986 146
  Tables 445-452
  Two-year 17
  What it provides 49

C

C^3 interoperability 130
Challenges of the 1990s, facing 227
Chemical(s) 50
  Capability, modernized 63
  Retaliatory capabilities 521
  Retaliatory stockpile 128
Chemical war deterrent, conventional 27
Chemical warfare 128
  Deterrence 138, 436
  Protection capabilities 520
Civilian employment, direct hire 547
Civilian end strength ceilings, elimination of 101
Civilian personnel 4
Closures, bases 13

Page

- Coalition strategy—Regional security 379
- Command, control, communications and intelligence (C^3I) 414
- Compensation as element of contract cost 163
- Competition 163-170
  - Advantages of 130
- Congressional directions, increases in, fiscal years 1970-85 44
- Contracting out, remove restrictions 102
- Contractor guarantees/warranties 132
- Contracts, fixed-price 25
- Contractual relief 172
- Conventional balance 183
- Conventional capabilities required by U.S. strategy 198
  - Modernization and force structure 201
    - Land forces 201
    - Maritime forces 202
    - Tactical air forces 203
    - Projection forces 204
  - Readiness 199
  - Sustainability 200
- Conventional force structure 24
  - Changes in 36
- Conventional initiatives 433
- Countermeasures 157
- Criminal investigations 42
- Cruise missile deployment 61

D

- Debarment and suspension 172
- Defense:
  - Budget 230
    - Cutting the 72
  - Expenditures 76
  - Improvements in 32
  - Manpower 544
  - Priorities 12
  - Reductions 148
  - Spending growth 94
  - Spending, level of 11
- Defense Contract Audit Agency (DCAA) 42, 253
- Defenses, effective 135
- Defensive negotiations, pursuing 62
- Defensive nuclear forces 127
- Department of Defense (DOD):
  - Appropriations, requested and appropriated 80, 81, 82, 83, 84, 85, 86, 87
  - Audits, internal 43
  - Efforts to stop waste, fraud, and abuse in fiscal year 1984 42
  - Mobilization initiatives 402
  - Reenlistment rates 546
  - Reorganization in the 12
- Deployments for Exercise Team Spirit '84 525
- Deterrence, the policy and the challenge 209
- Dual sourcing 69

E

- East Asia and the Pacific 393
- Economic and military strength of major powers 473
- Economic losses 95
- European troop strengths 138

F

- Force modernization improvements 23
- Force projection 349
- Force strength 89
- Force structure tables 149
- Forces, U.S., quality of 10

Page
Forces well trained 45
Forward deployed forces 147
Fraud and abuse 120
Future, preparing for the 466

G

General provisions 5
Glossary: Posture, U.S. statement 552
Goals, long term 54
Grace Commission 255
Ground forces systems modernization 513

H

Host Nation support (HNS) 411

I

ICBM modernization 126
Individual Ready Reserve strength (IRR) 547
Industrial base 283
    Status of 162
Inefficient and unstable programs 140
INF:
    Deployment 38
    Missiles, longer range 490
Installations 410
Interagency mobilization initiatives 401
Intercontinental ballistic missiles 24
International armaments cooperation 430
Intertheater cargo airlift capability 527

J

Joint Chiefs of Staff (JCS) special fund 208

L

Latin America 462
Life, quality of 134

M

M-day forces 149
Major power balance in East Asia and the Pacific 506
Management initiatives, other 254
Management reforms 241
Management headquarters:
    End strength 139
    Manning 139
Manpower 266
    Active duty 153
Marine Corps modernization 519
Middle East and Southwest Asia 460
Military:
    Balance/conventional forces 497
    Balance/nuclear forces 474
    Health care 441
    Hostilities and confrontations 458
    Installations in the United States 14
    Posture, U.S 45, 453
    Strategy 11
    Technologies, comparing 472
    Training student loads 4
Mission allocation and force integration 207
Mobilization 401
Modernization program 46

Page

Munitions 136
  Inventories, war reserve 22, 137
  Stockpiles 24
MX missile 57

N

National Guard and Reserves 122, 152
National interests 19
National security:
  Improving 10
  Objectives and defense strategy, U.S 190
NATO:
  Airlift requirements 150
  Conventional capabilities 149, 151
  Conventional defense 137
  Costs of 149
  Expenditures 52
  Identification system 138
  Mobility questions 150
  Reinforcement of 152
  Three percent commitment 51
  Three percent floor 55
NATO and Western Europe 499
NATO/Warsaw ground combat power 184
Naval forces 309
Naval shipbuilding program, U.S 517
Nonstrategic nuclear forces 489
NPT Treaty 93
Nuclear:
  Arms reductions 222
  Balance 181
  Forces 361
  Imbalance, emergence of 212
  Modernization 215
  Policies and programs 209
  Winter 93, 121

O

Operation and maintenance 3
Overhead reduction 43
Overspecification, elimination of 43

P

Pacific and East Asia 461
Pay change proposals 97
Pay, military 126
Peacekeeping operations, Middle East 549
Pershing II and GLCM coverage and SS-20 coverage from Soviet bases 491
Post-employment conflicts of interest 171
President's Private Sector Survey on Cost Control (PPSSCC) 103-118
Priorities, defense 12
Procurement 2, 68, 122
  Abuses, policing 90
  Multiyear 25
Production inefficiencies 145
Production rates:
  Cost impact of changes 141
  Savings on 140
Public relations costs 171

Q

Quantitative disadvantage, overcoming a 471

Page

R

Readiness and sustainability 257
Readiness, day-to-day 88
Readiness factors, personnel 33
Readiness, high state of 63
Readiness reporting 136
Real cost-savings suggestions 101
Real growth estimates 96
Recruit, higher quality 23
Regional objectives and strategies 194
    Europe 194
    South America, Central America, the Caribbean 195
    Middle East 195
    East Asia and the Pacific 196
    Africa 197
Research and development (R&D) 418
    Level, competition at 64
    Spending 132
Research, development, test, and evaluation 2
Reserve forces 3, 206
Reserve strength 23
Restationing plan, master 63
Retirement pay/family issues, military 133
Retirement programs 99

S

SSN-688 class attack submarines 136
SALT II Treaty 98
Savings, prior year 146
Savings through efficient production 119
Scowcroft Commission 124
Security and military posture 457
Security assistance 426, 539
Selected reserve manpower 546
Southwest Asia and the Middle East 385
Soviet:
    Arms control non-compliance 70
    Conventional forces 497
    Defense spending 153
    Expenditures, real growth 157
    Global power projections 31
    Look down/shoot down capability 61
    Objection and weapons deployment 157
    Power, global reach of 185, 186
    Strategic systems by year, introduction of 39
    Treaty violations 58
    Threat 181
Soviet/Cuban influence in Latin America 508
Soviet Union/Warsaw Pact expenditures 99
Space:
    Activities, military 537
    Arms race in 155
    Defense 77
    Systems operations 432
Space-based systems, negotiating 77
Spare parts initiatives 247, 248
Special forces operations 522
Special operations forces 206, 440
START 129, 148, 154
Stealth:
    Reduced funding for 161
    Schedule and costs 161
Strategic:
    Forces 475, 476
    Home porting initiative 15
    Nuclear forces 50

Page

- Strategic—Continued
  - Nuclear forces—Continued
    - Modernization 47
  - Requirements and resource commitments 468
  - Sealift resources 528
  - System deployments 477
  - Triad modernization 37
  - Weapons, deployed 158
- Strategic defense initiative (SDI) 50, 56, 90, 96, 122, 123, 128, 151, 155, 156, 218
  - And aggressive policy 156
  - And deterrence 156
  - Deployment, negotiations on 159
  - Negotiations on 159
- Star Wars 124
  - Verification 158
- Strategic versus conventional:
  - Forces 128
  - Programs 134, 151
- Strategy:
  - Maritime 119
  - Military 11
  - U.S. military 464

T

- Tactical air forces 333
- Tactical combat aircraft, annual production of 516
- Tanks 173
- Technology transfer and export control 434
- Terrorism, international 548
- Terrorist incidents, international 189
- Test and evaluation (T&E) 424
- Threat, the 31, 49
- Threats, other 188
- Threats to U.S. national interests 181
- Training improvements 34
- Treaties, violation of 121
- Treaty compliance, double standards on 71
- Troop morale improvement 16

U

- U.S. conventional forces 498
- U.S. foreign policy and military strength 179
- U.S., South Korea, North Korea forces, comparison 507
- U.S./Soviet:
  - Combat aircraft, current 515
  - Defense spending, real growth 74
  - Equipment delivered to Third World, comparison 187
  - Labor force 471
  - Naval aviation aircraft 512
  - Principal naval forces 510
  - Space activity summary 539
  - Strategic nuclear weapons 75
  - Strengths, comparing 58
- U.S./U.S.S.R.:
  - Throw-weight comparisons 158
  - Strategic balance 182

W

- War reserve munitions inventories 22
- Increases in 35
- Waste and inefficiency 100
- Waste, fraud, and abuse, curbing 250
- Weapon systems stability 162
- Weapons for NATO and Warsaw Pact forces 183
- Western Europe, NATO, and the Warsaw Pact 459

Page
Western Europe/North Atlantic Treaty Organization 379
Western Hemisphere 396
Workforce, professional 161
Working capital funds 3